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ABSTRACT

This study of the role of television in the presentation and cultivation of public conceptions of science and technology investigated these issues: (1) the types of representation and information about scientists, science, and technology that are embedded in television programs; (2) types of images and beliefs about science that television tends to cultivate in different groups of viewers; (3) levels of scientific interest and information associated with television watching in different groups of viewers; (4) public policy conceptions and attitudes toward science cultivated by television; and (5) how the reading of science magazines and viewing of science documentaries modify television's contributions to conceptions of science. A message system analysis performed on a sample of prime-time dramatic programs broadcast between 1973 and 1983 revealed that, if medicine is included, the images of science and technology appear in 7 out of every 10 of these programs, and that, in addition to news and occasional documentaries, the average prime-time viewer will see 11 doctors and one or two other scientists each week. The results of a national telephone survey of adults (N=1,643) indicate that heavy watchers of television have less favorable attitudes toward science than those who watch television less, especially in groups whose light viewers are the most favorable (such as those who went to college); television viewing is associated with a less positive adults (N=1,643) view of scientists and new technologies; and heavy viewers show more willingness to place restrictions on science and evidence the opinion that scientists are odd and peculiar. While television appears to inhibit interest in science among the best informed, it also reduced the amount the most interested think they know. A list of references is provided, as well as extensive appendices, which contain 40 data tables, 23 figures, a description of the research methodology, and a sample survey instrument. (JB)

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TELEVISION ENTERTAINMENT AND VIEWERS' CONCEPTIONS OF SCIENCE

A Research Report by
The Annenberg School of Communications,
University of Pennsylvania

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TELEVISION ENTERTAINMENT AND VIEWERS' CONCEPTIONS OF SCIENCE

A Research Report by
The Annenberg School of Communications,
University of Pennsylvania

by

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TELEVISION ENTERTAINMENT AND VIEWERS' CONCEPTIONS OF SCIENCE

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TELEVISION ENTERTAINMENT AND VIEWERS' CONCEPTIONS OF SCIENCE

Television releases the most widely shared stream of messages and images about science (and most other things) into the mainstream of common consciousness. These images, mostly fictional, make significant, systematic, and steady contributions to public conceptions about science, scientists, technology, and related issues.

What are these contributions? How are they related to conceptions held by different groups and cultivated by different media, including science magazines and documentaries? Our two-year study addressed these questions. We shall present the results against a background of historic paradoxes and the research that preceded our study.

CULTURAL CONTEXT

We live in a "scientific" and even "information" age; yet, only one in ten adults can provide a "minimally acceptable" definition of the meaning of scientific study and nearly half of all adult Americans think that astrology is "very" or "sort of" scientific (Miller, 1983). Scientific American publisher Gerard Piel has declared that "Human Want is Obsolete; [1] yet, human want stalks large parts of the earth on a scale not known in recorded history. The most advanced nations threaten humanity with universal annihilation.

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1. The Saturday Review, June 27, 1954, Vol. 36, No. 11.

New science magazines cater to increasing interest in science.[2] But the giant conglomerate Procter & Gamble has abandoned its 103-year-old trademark, an art-deco style face of the "man on the moon," after spending over $100 million in a vain attempt to dispel rumors that it was the mark of the Devil promoting Satan worship.[3]

These contrasts and contradictions are but recent extensions of historic disjunctions. They are parts of an organic pattern of imbalances and tensions that characterize science and its technological applications.

Science is a way of thinking and communicating that can both liberate and dominate. It can confer power on those who use it and devastate those who can't. Its images and symbols inspire feelings of confidence and apprehension, authority and resistance, control and being controlled. Rationality and madness, realism and fantasy, and the sensible as well as the occult invoke symbols of science.

Communicators who deal with such ambivalences do not have a simple task. The popular "market" for science (in contrast to specialized users who know what they need) is a mixture of great expectations and fears, utilitarian interests and curiosities, and ancient prejudices and superstitions. Mass media appeal to all of these.

The media segments the market by class and interest. The principal class factors, income and education, channel most uses and benefits, but also realistic apprehensions, to the upper stratum.

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2. An address by Jon Miller to the conference on "Science and the Media," The Annenberg School of Communications, University of Pennsylvania, October 23, 1984.

3. See e.g., Newsweek, May 6, 1985, p. 56.

Interest determines whether one seeks information or only encounters it in the course of entertainment.

Science journalism caters mostly to the upscale information seeker. The field is dominated by a few dozen veteran reporters and their favorite scientist contacts and sources (Dunwoody, 1980). Although science news makes up only 1 percent of all news (puzzles and horoscopes claim three times as much) (Nunn, 1979), science publishing boomed in the late 1970's.

Publishers had reason to be optismistic. "After all," the trade paper Advertising Age reported, "the nation's 25 to 40-year-olds -- that high-profile demographic -- had been reared on space walks, friendly computers, and organ transplants. As a group they were mostly well-educated and had a more than passing interest in the problems of pollution, fuel shortages, and things nuclear." [4] However, organ transplants, space walks, and things nuclear also gave rise to visions of new horrors. The science establishment meshed with the industrial and military in the minds of many critics. Much reporting, including the views of dissident scientists, reflected their misgivings and prompted the President's science advisor to charge that "the press is trying to tear down America" and that "it is skewed toward an apparent joy in attacking anything that resembles the 'establishment'." [5]

Being well-informed in an adversary context was found to result in being more wary and critical. The controversies about fluoridation and

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4. Advertising Age, October 18, 1984, p. 28.

5. New York Times, February 23, 1985.

nuclear power were analyzed as reflecting a pattern of initial hope turning to fear not only of the risks involved but also of being manipulated and losing control. New bursts of collective apprehension energized by media stories about asbestos, animal experimentation, and pollutants in the air, food, and water also fueled anxieties about unrestrained science and technology (see, e.g., Cronholm and Sandell, 1981).

These currents mingled with the traditional streams of alarmist sensationalism and obscurantism designed mostly for those who hold the "miracles" and terrors of science in almost religious awe, as well as for those who never had much use for or enjoyed its benefits and have always looked at it with suspicion and mistrust. MacDougall's book, Superstition and the Press, details how newspapers report doomsday prophecies, exorcism, sea serpents and monsters, psychics, faith healers, gurus, subliminal persuasion, creationism, UFO's, and pseudo-scientific cults and practices of all kinds.

This is the cultural context in which television plays its pivotal and pervasive role. Unlike other media, television is used relatively nonselectively by the entire community. The set is on in the typical American home for an average of 7 hours each day. Generations are born into its symbolic environment and live out their lives exposed to its patterns. These patterns provide an abundance of information, mostly through what is usually called entertainment, to all viewers, including those who seek no information. Television reaches the previously unreachable with a uniform message, quickly and continuously.

In order to attract and sell the largest number of people at the least cost to the advertiser (the source of broadcaster income), television must cultivate the most common interests, hopes, and fears

of the largest groups of viewers. These imperatives define the role and channel the functions of television in our society. How do they shape its contributions to public conceptions of science? Before presenting our answers to that question, we shall describe the research that delineated our tasks and paved the way for our study.

PREVIOUS RESEARCH

Most Americans encounter science and technology most often on television. These encounters are rarely with scientists, educators, or even through science programs (such as NOVA). Most of it comes in the form of entertainment. Yet little research has been devoted to information about science and technology in television entertainment and how television viewing is related to scientific knowledge and conceptions.

Media-related research about "science" has focused primarily upon news and newspapers and been concerned with the degree of accuracy in reporting science news items. [6] Researchers have also documented the importance of mass media as sources of information about science (Ubell, 1963; Wade and Schramm, 1969). Kreighbaum (1959) noted that reader enjoyment increases when the article presents and discusses facts rather than theories, focuses upon specifics rather than generalities, and has a human interest component.

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6. Estimates of the accuracy of the coverage given to specific scientific issues and controversies range from low (Tankard and Ryan, 1974; Pulford, 1976) to moderate (Tichenor, et al., 1970) to high (Shaw and VanNevel, 1967; O'Keefe, 1970). Many of these studies are reviewed by Cronholm and Sandell, 1981).

There has also been concern with assessing the impact of science reporting, especially in light of the finding that most people do not act upon scientific information they may read about (Robinson, 1963). For example, few people change smoking habits or begin to use seat belts as a result of reading reports published in newspapers and/or magazines. As with studies dealing with news accuracy, hints about the impact of science news on public opinion and understanding generally come from studies which focus upon specific events or discoveries (e.g., Friedman,1981; Pfund and Hofstadter, 1981; Shepherd, 1981.)

Of course, media influence may extend beyond public understanding (or misunderstanding) of science "to affect the very boundaries and scope of ... policy" (Pfund and Hofstadter, 1981). Even the sheer quantity of media attention may affect attitudes. Mazur (1981) claims that an increase in media coverage of a scientific technology leads to an increase in public opposition. As coverage wanes, opposition declines. For example, opposition to nuclear power ebbed and flowed in close correspondence with the quantity of media coverage of the Three Mile Island accident.

Again, most of this research deals with relatively isolated events or issues, in the context of news reporting. But science news makes up a small percentage of all news (Nunn, 1979; Cronholm and Sendall, 1981). Furthermore, studies of science coverage in the media conducted over decades have consistently revealed that most magazine stories are about biology (Hopkins, 1925; Searle, 1926; Koelsche and Morgan, 1964) and that, in general, media science coverage tends to be health-related (Finley and Cladwell, 1923; Shaw and Van Nevel, 1967; Sherburne, 1963; Lewis, 1977).

Few researchers have investigated the image of science in mass media entertainment. Comstock and Tully (1981) analyzed the portrayal of "innovation" -- defined as "invention, experimentation, research, design, development" -- in a sample of films produced between 1939 and 1976. They found such "innovation" in less than four percent of the films, but a clear pattern emerged. Innovation was marked by benevolent motives, and was usually succesesful; but almost half the time, it had negative consequences on people (especially the innovators themselves) or on society. Sherburne (1963) found six percent of all prime-time programming specifically focused on science, with three-quarters focusing upon medicine and psychology.

None of this research links media representations with people's conceptions. In previous studies we have found that television makes specific and measurable contributions to people's assumptions and actions relating to violence, mistrust, and alienation (Gerbner, et al., 1978, 1979, 1980b); sex-role stereotypes (Signorielli, 1979; Gross and Jeffries-Fox, 1978; Gross and Morgan, 1985); aging and older people (Gerbner, et al., 1980d); health-related conceptions and practices (Gerbner, et al., 1982); sex (Gerbner, 1980); the family (Gerbner, et al., 1980a); occupational stereotypes and aspirations (Jeffries-Fox and Signorielli, 1979; Morgan and Gross, 1982); religion (Gerbner, et al., 1984); and political orientations (Gerbner, et al., 1982).

These studies have led to the development of the conceptual and empirical framework for this research. Briefly, this theory holds that widespread exposure to television may blur conceptual differences deriving from other influences, resulting in a blending of the outlooks of heavy viewers into a relatively homogeneous "mainstream" perspective.

"Mainstreaming" was evident in a pilot study for this research (Gerbner, et al., 1980c). Heavy television viewing was associated with lower levels of confidence in the scientific community among those who were, as light viewers, most favorably disposed to science: the better educated, younger, and more affluent respondents.

Comparable results have been found among adolescents. [7] We coded, into two categories, responses to an open-ended question asking, "What job would you like to have when you are out of school and working full time?" One category consisted of occupations relating to science and technology, [8] and the other was made up of all other occupations. Both at the same time, and over time, adolescent heavy viewers were significantly less likely to choose a science-related job, even after controlling for IQ, sex, grade in school, and social class.

Even more striking is the way the longitudinal relationship varies across different groups. While the longitudinal relationship holds up overall after controls (beta = -.15, $p<.05$), there is a significant interaction with IQ (partial = -.12, $p<.05$). This means that television's negative effect on choosing a science-related job a year

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7. Our cultivation analysis data archives include several cross-sectional samples and longitudinal panels of adolescents (6th through 9th graders) attending a public school in surburban/rural New Jersey. Cross-sectional sample sizes range from 335 to 649; for the two-year panel providing the results referred to here, N=347.
8. Over three years, 374 different jobs were given, of which 41 (11 percent) were coded as "science-related." Overall, about seven or eight percent of students gave science-related answers. Typical examples are biologist, aerodynamics, geneticists, astronaut, nuclear engineer, "work at NASA." and physicist.

later is particularly strong among those with higher IQ's, even after controls are applied for sex, age, residual variance in IQ, and earlier career plans. [9]

Finally, there is an even stronger interaction between earlier viewing and earlier plans (partial = -.34, $p<.001$) on subsequent science-related aspirations. This means that television's independent impact on adolescents' tendency to shy away from a science-related career is strongest of all among those who, a year earlier, had expressed the desire for a science-related occupation. The specifications for both early plans and IQ level show mainstreaming in a longitudinal context; the aspirations of heavy viewers who were predisposed toward a science career converge over time with those groups who are not interested in science as a profession.

In extending these findings, the research reported here provides a more systematic and comprehensive account. Our study consisted of two phases -- a detailed content analysis and a viewer survey about science, technology, and media use. The first involved a systematic investigation of the messages embedded in the content of a sample of prime-time network dramatic television programs. A description of the message system analysis in Appendix III explains sampling procedures and the method of coding and ascertaining the reliability of the

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9. When earlier plans are partialled out of later plans, the latter reflect "new information" or "change" in plans for a science career; when the demographics are also removed, later plans represent change which is not attributable to either earlier plans or background factors. For medium and high IQ students, earlier viewing level significantly predicts that "change" ($r=-.26$ and $-.21$, respectively; both $p<.01$). For low IQ students, $r=.03$ (n.s.).

observations. Appendix III also describes the national probability telephone survey of over 1,600 viewers conducted to ascertain television's cultivation of conceptions of science, technology, and related subjects.

SCIENCE ON TELEVISION AND ITS LESSONS

We now turn to the findings of our study of the role of television in the presentation and cultivation of public conceptions of science and technology. The study asked these specific questions:

1. What types of representations and information about scientists, science, and technology are embedded in television programs?
2. What types of images and beliefs about science does television tend to cultivate in different groups of viewers?
3. What levels of scientific interest and information are associated with television watching in different groups of viewers?
4. What public policy conceptions and attitudes toward science are cultivated by television?
5. How does the reading of science magazines and viewing of science documentaries modify, if at all, television's contributions to conceptions of science?

In this section we shall summarize the results of the message system analysis ("What Viewers See") and of the cultivation analysis ("What Viewers Think and Do"). The data on which these descriptions are based can be found in Tables 1-40, all in Appendix I. Selected findings are depicted graphically in Figures 1-23, all in Appendix II.

What Viewers See

If we include medicine (as most of our respondents do), the images of science and technology appear in 7 out of every 10 prime-time dramatic programs. In addition to news and occasional documentaries, the average prime-time viewer will see 11 doctors and one or two other scientists each week.

Science and technology dominate all programs set in the future and are most likely to be featured in fast-moving globe-trotting adventure (See Table 1). Television doctors are among the most valued characters in prime-time, but other scientists, while still positively presented, have a greater share of ambivalent and troublesome portrayals. They are a bit older and "stranger" than other professionals; and more of them are of foreign (non-U.S.) nationality. For every villainous ("bad") scientist in a major role there are 5 who are virtuous ("good"). But, for every "bad" doctor, 19 are "good," and for every "bad" law-enforcer, 40 are "good." (Detailed comparisons of characters will be found in Tables 2-14.)

This relative flaw in the aggregate image of television scientists is also reflected in their success rate. For every scientist in a major role who fails, 2 succeed. But for every doctor who fails, 5 succeed, and for every law-enforcer who fails 8 succeed. One reason for the higher rate of failure might be that about 5 percent of scientists kill someone and 10 percent get killed. That is the highest casualty rate of all occupational groups on television, including the army, police, and private investigators. It is even higher (14 percent) among male scientists.

A roll call of major characters includes a Dr. Zayes, the Minister of Science on a fictional planet; the improbable physicist Dr. Bernard, with a dual U.S. and Russian nationality; a Dr. Ludwig von Drake "Professor of Human Nature;" electronic inventor Takahasi and forensic medico Fugiama; a veterinarian's assistant Gloria Stivic; astrogeologist Dr. Leath; a Dr. Jekyll; two computer wizards; a paleontologist and a marine biologist; a creator of humanoids; researchers into mind-control and the antidote to mind-control; experts on terrestrial and undersea wildlife, arcane and standard archeology, civil and architectural engineering; and a crime-fighting geologist.

Bizarre and dangerous though it may be, scientific work on television is not all bad and certainly not "mad." Scientists were rated stronger and smarter than other professionals, and quite rational. Of all occupational groups on television, scientists were observed as among the least sociable. They were the most likely to work alone and to hold jobs they considered "very important." All in all, they presented an image lacking in some respects only in comparison to doctors and other professionals than in absolute terms. But it is a somewhat foreboding image, touched with a sense of evil, trouble, and peril.

What Viewers Think and Do

Are the potential "lessons" of television's world of science reflected in the ideas and behaviors of viewers? We turn to the question of the relationships between exposure and response. The answers indicate the extent to which television tends to cultivate certain orientations among different groups of viewers. Cultivation analysis involves the examination of response patterns of viewers, controlling for other demographic and media variables. The differences between light and heavy viewers (if any), called cultivation differentials (CD's), indicate whether the amount of viewing makes an independent contribution to viewer conceptions.

First we will describe our sample of respondents and their viewing habits. Then we will present the findings of cultivation analysis with respect to (1) general orientation toward science and technology, and (2) specific science-related images, beliefs, and attitudes.

The respondents and their use of media

Table 15 describes the sample of respondents by amount of viewing in several demographic and media categories. We know from prior studies that differences in viewing reflect differences in styles and conditions of life that directly affect what people think and do. Therefore, in order to isolate television's contribution from other powerful influences, we need to control for other factors and look at differences related to viewing in relatively homogeneous subgroups. Those subgroups are noted on Table 15. It shows that amount of viewing varies most with social status (education, race, income): the lower the

status, the more television dominates leisure time. Those who read newspapers and science magazines and watch science documentaries on television are represented in all viewing categories. This will help compare the relative contributions of nonfictional science reading and viewing to dramatic entertainment.

Heavy viewers watch more of all kinds of programs (see table 16). The relative nonselectivity of heavy viewers makes it unnecessary to determine the specific programs people watch; knowing the sheer amount of viewing is usually sufficient to conclude that the heavy viewer is more likely than the light viewer to encounter almost any kind of program.

When we combine science reading and viewing to look at those who both seek out nonfiction science and are light viewers of television and to compare them to those who do not seek out science but are heavy viewers of television, we find that the "seekers" have higher social status. They are also much more likely to watch science documentaries on television. The others are more likely to absorb information mostly from general entertainment. Our task is to examine what they absorb, and to note the special contributions that science information-seeking might make to their ideas, as well as to those of the "seekers."

We begin with the most general indicators of television's contributions to viewer orientations. These are indices combining reponses to groups of questions reflecting a common dimension. After describing general patterns of orientation toward science and technology, we will look at specific images reflected in the replies of viewers. These include scientists and their work; the benefits of science, its impact on the rate of change; aspects of health and safety awareness; beliefs about astrology, faith, and divine control; space

exploration and nuclear power; and the likelihood of viewers contacting public officials about science.

Index of orientation towards science

We combined the responses to five items into a factor-based index reflecting general orientations towards science. The items asked respondents to agree or disagree with propositions that science makes our way of life change too fast; makes our lives healthier, easier and more comfortable; breaks down people's ideas of right and wrong; is likely to cause more problems than to find solutions; and that the growth of science means that a few people could control our lives. (See items 6a - 6e in Appendix IV.)

All items used in the index were recoded so that a positive image of science gave a higher score. The index (Armor's Theta = .69) ranged from 3.24 to 13.28, with a mean score of 8.78, and a median of 9.19. We constructed a high vs. low dichotomous version of the index. Table 18 shows the percents of light, medium, and heavy viewers who have high scores on the index, controlling for nine demographic and media exposure variables. The larger the percent the greater the proportion of the group holding positive orientations toward science. Positive Cultivation Differentials (CD's) mean that more heavy than light viewers are favorable, and negative CD's mean that fewer heavy than light viewers are favorable toward science. Figure 1 illustrates these findings.

Heavy viewers are less likely than light viewers to express favorable views about science in response to the questions that comprise this index. Consequently, as Table 18 reveals, the CD's are negataive (with only one exception), many are significant, and most are

monotonic. The only positive cultivation differential occurs in the case of the non-white respondents, the group whose light viewers show the lowest proportion of positive images of science in the sample. Conversely, the largest negative CD's are seen within those subgroups whose light viewers are by far the most positive towards science.

In other words, exposure to science and technology through television entertainment appears to cultivate a generally less favorable orientation toward science, especially among higher status groups whose members as light viewers are its greatest supporters. Lower status groups have a generally less favorable view of science, and television makes little difference for them. Most groups exhibit a greater commonality of perspective as heavy than as light viewers. We call that mainstreaming: a relative commonality of outlooks that reflects greater exposure to the common cultural mainstream of television, overriding the effects of important background factors.

Does reading science magazines and watching science documentaries on television make a difference? It does. Those who read science magazines or watch science documentaries (or even just read newspapers) are more likely to score high on the index (have a positive orientation). Mainstreaming is evident in that the heavy viewing science-readers and watchers are still less positive than their light viewing counterparts. Seeking out science is a sign of more positive orientation, but viewing appears to counter that positive tendency.

Let us sum up the pattern that will be repeated, with some variations, in the responses to other questions. The more people watch television the less favorable they are about science, especially in groups (such as those who went to college) whose light viewers are the most favorable. Some groups (such as older and lower-status

respondents) are in the less favorable or more critical television mainstream. For them, viewing makes little difference or (as among non-white respondents) can even cultivate a more positive view. Reading and viewing nonfictional science materials relate to a generally more positive orientation toward science but do not prevent erosion of that view among heavy viewers. The cultivation of relatively critical and negative views and the blending of all views into the television mainstream are the usual correlates of viewing.

Index of orientation towards scientists

Respondents were asked to agree or disagree that scientists do dangerous work; don't get much fun out of life; usually don't get married; if married, don't spend much time with their families; are apt to be odd and peculiar; are apt to be foreigners; are not likely to be religious; have few interests outside their work; are mainly interested in knowledge for its own sake and don't care much for its practical value. (See items 16b - 16i, Appendix IV.) These items yield a single dimension in factor analysis, and they combine into a reliable index (Armor's Theta = .78). The index, which ranges from 7.53 to 21.03, has a mean of 13.47 and a median of 13.66. We dichotomized the group at the median to isolate the high-scoring (positive) respondents and observe their distribution by amounts of viewing. This is shown in Table 19, controlling for demographic and media variables. Figure 2 illustrates these tendencies.

As before, in most comparisons, television viewing is associated with a less positive view of scientists. In no case do heavy viewers within a particular group express views that are more positive, although in some instances (those 55 and older, non-whites, those with

greater interest in religion) heavy and light viewers are equally negative; again, groups whose light viewers are the least likely to offer positive views of scientists seem to be most in tune with the television mainstream. Reading science magazines and watching science documentaries raise the percentage of positive responses among light viewers but again yield to the mainstreaming pattern.

Index of orientation towards technology

We combined the responses from six questions to create a factor-based index reflecting orientations towards technological innovation. The first of these questions (item 4, Appendix IV) noted that, "These days, more and more things that people used to do are done by machine. Do you think that's a good thing or a bad thing?" The other five questions were addressed to specific technological developments, each to be labelled by respondents as good, a little of both, or bad: computers, industrial robots, electronic bank tellers, nuclear power plants, and video games (items 5a,b,d,e,f; Appendix IV). These items were found to yield a single factor, and the index shows an acceptable reliability (Armor's theta = .69). The index ranged from 2.55 to 10.05, with a mean of 6.99. The index scores were further dichotomized at the median (6.97) to create a high-low breakdown. The distribution of high scores can be seen in Table 20 and Figure 3.

Overall, and in every subgroup, television viewing is associated with a less positive view of the new technologies. In almost all cases these negative associations are significant; where they are not, it is always in the group least likely to express positive views.

Index of views on restraining science

We created an index from four items which were shown by factor analysis to reflect a common underlying dimension of desire to place restrictions on the activities permitted to scientists. These items asked respondents whether they thought scientists should or should not be allowed to conduct studies that: could enable people to live to be a hundred or more; could allow scientists to create new forms of animal and plant life; could discover intelligent beings in outer space; and could allow parents to select the sex of their child (items 11a,b,c,d; Appendix IV). The index (Armor's theta = .61) ranges from 1.99 to 5.42, with a mean of 3.85 (respondents were allowed only one missing item). We divided the respondents at the index median (3.99). The results are shown in Table 21 and Figure 4.

The index reveals a consistent relationship to television viewing, with heavy viewers showing more willingness to place restrictions on science. Mainstreaming is evident in most groups. Among the light viewing respondents with some college education, for example, we find only 28 percent scoring high on this index, compared with 54 percent of the less educated light viewers. This difference of 26 percentage points compares with a difference of only 8 points between the heavy viewers of the two groups.

Index of interest and information

Does the association of television with less favorable outlooks on science and technology stem from a lack of interest or information? We created two indices to answer that question. Responses to questions (see items 2 and 3, Appendix IV) about interest in and being well informed about space exploration, new scientific discoveries, new

inventions and technology, and energy policy were combined to create indices of interest in science and being well informed about science. Both indices had a single underlying dimension (revealed by factor analysis) and were reliable (Cronbach's alpha was .56 for the Interest in Science Index and Cronbach's alpha was .65 for the Well Informed About Science Index). Both indices were derived so that the scores ranged from 0 to 1. The Interest in Science Index had a mean of .397 and a median of .250. The Well Informed About Science Index had a mean of .147 and a median was .004. Both indices were dichotomized at the median to form a low-high breakdown.

Nearly half of all respondents, regardless of amounts of viewing, score high on the interest index (See Table 22 and Figure 5). Some mainstreaming is evident in that viewing cultivates interest in science, if at all, only among those who are generally the least interested (such as older respondents and those who rarely read science magazines), but inhibits it among those most interested (like nonreligious respondents).

Table 23 and Figure 6 give the distribution of high scores on the index of being well informed about science. Overall, viewing makes a significant negative difference with 39 percent of light but only 32 percent of heavy viewers scoring high on the information index.

Does a lack of interest account for the negative relationship between viewing and information? Apparently not, but it helps clarify it. Table 24 cross-tabulates interest and information scores by viewing differences. (See also Figure 7.) Among those with low interest 19 percent see themselves as informed, and viewing makes no difference. However, among those with high interest, 60 percent of light but only 47 percent of heavy viewers claim to be informed. The

results are similar for respondents who say they are well informed: 75 percent of the light viewers but only 68 percent of the heavy viewers score high on the interest index. Television appears to inhibit interest in science among the best informed, but also reduce how much the most interested think they know.

Scientists and their work

Dramatic images involve characters in action. We have reported that scientists in the world of television tend to be a bit older, stranger, and more ambivalent than most other characters, and lead lives that are more isolated and perilous. Are these images reflected in the ideas of viewers?

Respondents were asked to agree or disagree with the propositions that scientists are odd and peculiar people; their work is dangerous; they have few interests but work; they spend little time with their families. (See item 16, Appendix IV.) We also asked them to rate the job of a scientist compared to "most other jobs" (item 17). Tables 25-29 present the results. Figures 8-12 illustrate selected group differences.

The more people watch television, the more they think that scientists are odd and peculiar. This is especially pronounced among males, non-whites, and those who do not watch science documentaries, do not read science magazines, and have a high interest in religion. The cultivation of a sense of danger in science is most striking among the higher-status and younger viewers. Heavy viewers in most groups are more likely than light viewers to respond that scientists have few interests except work and that they spend little time with their families. Predictably, fewer heavy than light viewers believe that

science jobs are better than most.

Pseudo-science and religion

We inquired into anti-scientific, pseudo-scientific, and religious orientations by asking questions about astrology and by constructing a science vs. religion index. Tables 30-32 and Figures 13-15 present the results.

Although more than half of all respondents concede that astrology is not scientific (item 35, Appendix IV), heavy viewers in all groups are much less likely to do so. Reading science magazines and watching science documentaries do not make much difference. Heavy viewers who read science magazines frequently and those who have a high interest in religion seem to be particularly prone to believing that astrology is scientific. The same configurations can be observed in responses to a question about horoscopes. Heavy viewers in every group, but especially among those interested in science or religion, are significantly more likely to read horoscopes than are the light viewers in the same groups (item 34, Appendix IV).

When it comes to choosing explicitly between science and faith, however, group differences reappear and the cultivation of anti-scientific orientations becomes weaker. An index of science vs. religion was created by combining responses to questions about depending upon faith instead of science, believing that the world is controlled by God rather than by itself, and saying that science courses in public schools should teach only the biblical version of creation (versus the theory of evolution or both). (See items 6f, 7, and 28; Appendix IV.) Factor analysis revealed a single underlying dimension but Cronbach's alpha was only .49. This index was

constructed so the scores ranged from 0 to 1; the mean was .420 and the median was .329. The analysis used the dichotomous version of the index. A low score implies a choice of "science" answers over "religion" answers. The results can be seen on Table 32 and Figure 15.

While the preference for science vs. religion is less strongly related to television exposure than is the belief that astrology is scientific, viewing tends to reduce the choice for science in most groups. Reading science magazines and viewing television documentaries make a substantial difference in choosing science, especially among light viewers.

Health and safety

Drinking and reckless driving are frequent in the world of television, yet alcoholism is seldom a problem and car accidents are relatively rare. Table 33 shows that although most people consider alcohol a major health problem (item 29e), heavy viewers are no more aware than light viewers of that fact. Table 34 indicates that the majority of respondents do not use seat belts (item 30), and that most groups of heavy viewers are even less likely to do so. (See also Figures 16 and 17.) It may be that alcohol awareness is on such a high level that television (and most distinctions) do not affect it. But the significant drop in seatbelt use among most groups of heavy viewers seems to be an indication that viewing runs counter to awareness of automobile safety.

Science - threat or promise?

The final group of results deals with critical attitudes related to science. Does it make life change too fast? Pose more of a threat than a promise? What about nuclear energy? Space exploration? Citizen responsibility?

Tables 35-40 and Figures 18-23 show television's contributions to answering these questions. Most groups of heavy viewers believe that science makes life change too fast (item 6a). Viewing also tends to enhance anxiety and erode or inhibit appreciation of the benefits of science. This is especially significant among groups that are otherwise the most supportive, such as college educated and higher income persons, and those who read science magazines.

Although most people disagree that science causes more problems than solutions (item 6d), fewer heavy than light viewers do so, and again especially in groups otherwise most supportive. One of those "problems" may be nuclear power plants: heavy viewers in all subgroups are more critical of them (item 5e). Space exploration is also in disfavor: almost all groups of heavy viewers would spend less money on it (item 9e). And, although few respondents in any group contact public officials about science (item 33), heavy viewers in the best informed groups are even less likely to do so.

In sum, prime-time television drama presents a steady stream of generally positive images and messages that lack more in comparison to other professions than in absolute terms. Nevertheless, they tend to reflect and exacerbate public ambivalence and anxiety about science.

Television's contribution to popular conceptions of science and scientists blends with other social and cultural influences into a

mainstream that tends to be more critical and negative than the views of comparable groups that watch less television. Foreboding images of odd and perilous activity seem to heighten fears, strengthen the desire for restraints, and inhibit the inclination for science as an occupation or an area of public participation. Reading and watching documentary programs about science make a significant positive contribution. However, even this does not completely overcome the steady cultivation of relatively critical and negative conceptions, especially among those who are otherwise the most supportive.

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Appendix I

Tables

Table 1

Description of Prime-Time Network Dramatic Programs With and Without The Theme of Science/Technology/Medicine* (1973-1983)

	No "Science"			"Science" Minor			"Science" Major			All Programs	
	N	Row %	Col %	N	Row %	Col %	N	Row %	Col %	N	Col %
N =	252	30.1	100.0	410	49.0	100.0	174	20.8	100.0	836	100.0
Place											
Cannot Code	4	30.8	1.6	4	30.8	1.0	5	38.5	2.9	13	1.6
U.S. Only	228	31.1	90.5	367	50.0	89.5	139	18.9	79.9	734	87.8
U.S. and Other	3	25.0	3.6	13	36.1	3.2	14	38.9	8.0	36	4.3
Only Other	11	20.8	4.4	26	49.1	6.3	16	30.2	9.2	53	6.3
Date											
Past	49	38.6	19.4	61	48.0	14.9	17	13.4	9.8	127	15.2
Present	202	29.1	80.2	345	49.7	84.1	147	21.2	84.5	694	83.0
Future	0	.0	.0	0	.0	.0	5	100.0	2.9	5	.6
Program Type											
Action-Adventure	89	25.1	35.3	165	46.5	40.2	101	28.5	58.0	355	42.5
Situation Comedy	125	40.6	49.6	152	49.4	37.1	31	10.1	17.8	308	36.8
Setting											
Cannot Code	9	52.9	3.6	5	29.4	1.2	3	17.6	1.7	17	2.0
Urban-Suburban	151	29.1	59.9	267	51.4	65.1	101	19.5	58.0	519	62.1
Small Town	58	33.7	23.0	81	47.1	19.8	33	19.2	19.0	172	20.6
Uninhabited-Mobile	32	29.4	12.7	46	42.2	11.2	31	28.4	17.8	109	13.0
Mixed	2	10.5	.8	11	57.9	2.7	6	31.6	3.4	19	2.3

* We use the term "Science" to label these groups of programs.

Table 2

Occupation of Adult Characters in Prime-Time Network Dramatic Programs* (1973-1983)

All Characters

	All		Male			Female		
	N	Col %	N	Row %	Col %	N	Row %	Col %
All Characters	12760	100.0	9095	71.3	100.0	3664	28.7	100.0
Scientist	59	.5	44	74.6	.5	15	25.4	.4
Technician	79	.6	69	87.3	.8	10	12.7	.3
Doctor	419	3.3	384	91.6	4.2	35	8.4	1.0
Nurse	199	1.6	4	2.0	.0	195	98.0	5.3
Paramedic	30	.2	28	93.3	.3	2	6.7	.1
Other Professionals	1723	13.5	1266	73.5	13.9	457	26.5	12.5
Other White Collar**	1732	13.6	1210	69.9	13.3	522	30.1	14.2
Blue Collar	1464	11.5	1126	76.9	12.4	338	23.1	9.2
Military	574	4.5	502	87.5	5.5	72	12.5	2.0
Police/Private I.	1576	12.4	1474	93.5	16.2	102	6.5	2.8

Major Characters

	All		Male			Female		
	N	Col %	N	Row %	Col %	N	Row %	Col %
All Characters	2532	100.0	1746	69.0	100.0	786	31.0	100.0
Scientist	19	.8	13	68.4	.7	6	31.6	.8
Technician	4	.2	2	50.0	.1	2	50.0	.3
Doctor	104	4.1	89	85.6	5.1	15	14.4	1.9
Nurse	22	.9	1	4.5	.1	21	95.5	2.7
Paramedic	7	.3	6	85.7	.3	1	14.3	.1
Other Professionals	372	14.7	247	66.4	14.1	125	33.6	15.9
Other White Collar**	374	14.8	285	76.2	16.3	89	23.8	11.3
Blue Collar	173	6.8	114	65.9	6.5	59	34.1	7.5
Military	102	4.0	88	86.3	5.0	14	13.7	1.8
Police/Private I.	377	14.9	334	88.6	19.1	43	11.4	5.5

* The row percentages reflect the percent of all characters, men, or women within a particular occupation.

** includes managers, government workers, clerks, secretaries, and the self-employed

Table 3

Social Age of Adult Characters in Specific Occupations
in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters							Major Characters						
	Total	Young Adult		Settled Adult		Elderly		Total	Young Adult		Settled Adult		Elderly	
	N	Row%	Col%	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%	Row%	Col%
All Characters	12760	20.0	100.0	73.8	100.0	3.0	100.0	2532	21.0	100.0	73.4	100.0	2.8	100.0
Scientist	59	8.5	.2	86.4	.5	5.1	.8	19	15.8	.6	78.9	.8	5.3	1.4
Technician	79	12.7	.4	87.3	.7	.0	.0	4	25.0	.2	75.0	.2	.0	.0
Doctor	419	5.5	.9	92.8	4.1	1.7	1.9	104	6.7	1.3	89.4	5.0	3.8	5.7
Nurse	199	18.6	1.5	80.4	1.7	.5	.3	22	9.1	.4	90.9	1.1	.0	.0
Paramedic	30	23.3	.3	76.7	.2	.0	.0	7	42.9	.6	57.1	.2	.0	.0
Other Professionals	1723	16.1	10.9	82.1	15.0	1.6	7.4	372	20.2	14.1	78.2	15.7	1.6	8.6
Other White Collar**	1732	11.1	7.5	85.1	15.7	3.1	14.1	374	12.0	8.5	84.5	17.0	3.2	17.1
Blue Collar	1464	21.0	12.1	75.4	11.7	2.4	9.3	173	33.5	10.9	63.6	5.9	2.3	5.7
Military	574	23.9	5.4	73.7	4.5	1.6	2.4	102	15.7	3.0	82.4	4.5	2.0	2.9
Police/Private I.	1576	7.3	4.5	91.8	15.4	.4	1.6	377	11.1	7.9	88.3	17.9	.5	2.9
Male Characters	9095	16.4	100.0	78.2	100.0	2.6	100.0	1746	18.1	100.0	76.7	100.0	2.8	100.0
Scientist	44	4.5	.1	88.6	.5	6.8	1.3	13	7.7	.3	84.6	.8	7.7	2.0
Technician	69	8.7	.4	91.3	.9	.0	.0	2	.0	.0	100.0	.1	.0	.0
Doctor	384	5.7	1.5	92.4	5.0	1.8	3.0	89	7.9	2.2	87.6	5.8	4.5	8.2
Nurse	4	.0	.0	100.0	.1	.0	.0	1	.0	.0	100.0	.1	.0	.0
Paramedic	28	21.4	.4	78.6	.3	.0	.0	6	33.3	.6	66.7	.3	.0	.0
Other Professionals	1266	13.6	11.5	84.4	15.0	1.8	9.7	247	19.4	15.2	78.9	14.6	1.6	8.2
Other White Collar**	1210	5.5	4.4	91.1	15.5	3.0	15.2	285	8.8	7.9	88.1	18.7	3.2	18.4
Blue Collar	1126	18.0	13.6	78.5	12.4	2.4	11.4	114	29.8	10.8	67.5	5.7	2.6	6.1
Military	502	22.7	7.6	74.7	5.3	1.6	3.4	88	12.5	3.5	85.2	5.6	2.3	4.1
Police/Private I.	1474	6.5	6.4	92.5	19.2	.4	2.5	334	10.2	10.8	89.2	22.2	.6	4.1
Female Characters	3664	28.7	100.0	62.9	100.0	3.8	100.0	786	27.4	100.0	66.0	100.0	2.7	100.0
Scientist	15	20.0	.3	80.0	.5	.0	.0	6	33.3	.9	66.7	.8	.0	.0
Technician	10	40.0	.4	60.0	.3	.0	.0	2	50.0	.5	50.0	.2	.0	.0
Doctor	35	2.9	.1	97.1	1.5	.0	.0	15	.0	.0	100.0	2.9	.0	.0
Nurse	195	19.0	3.5	80.0	6.8	.5	.7	21	9.5	.9	90.5	3.7	.0	.0
Paramedic	2	50.0	.1	50.0	.0	.0	.0	1	100.0	.5	.0	.0	.0	.0
Other Professionals	457	23.2	10.1	75.7	15.0	1.1	3.6	125	21.6	12.6	76.8	18.5	1.6	9.5
Other White Collar**	522	24.1	12.0	71.3	16.2	3.3	12.1	89	22.5	9.3	73.0	12.5	3.4	14.3
Blue Collar	338	31.1	10.0	65.1	9.6	2.4	5.7	59	40.7	11.2	55.9	6.4	1.7	4.8
Military	72	31.9	2.2	66.7	2.1	1.4	.7	14	35.7	2.3	64.3	1.7	.0	.0
Police/Private I.	102	18.6	1.8	80.4	3.6	.0	.0	43	18.6	3.7	81.4	6.7	.0	.0

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

Table 4

Average Chronological Age of Adult Characters in Specific Occupations in Prime Time Network Dramatic Programs (1973-1983)

	All Characters		Major Characters	
	Total	Average Age	Total	Average Age
	N	$\bar{X}$	N	$\bar{X}$
All Characters	12760	37	2532	36
Scientist	59	42	19	41
Technician	79	34	4	34
Doctor	419	42	104	42
Nurse	199	34	22	35
Paramedic	30	30	7	30
Other Professionals	1723	38	372	37
Other White Collar*	1732	42	374	42
Blue Collar	1464	38	173	36
Military	574	34	102	37
Police/Private I.	1576	38	377	38
Male Characters	9095	39	1746	37
Scientist	44	44	13	45
Technician	69	35	2	38
Doctor	384	42	89	43
Nurse	4	32	1	28
Paramedic	28	30	6	30
Other Professionals	1266	39	247	38
Other White Collar*	1210	44	285	43
Blue Collar	1126	39	114	37
Military	502	35	88	38
Police/Private I.	1474	38	334	39
Female Characters	3664	34	786	35
Scientist	15	35	6	31
Technician	10	28	2	30
Doctor	35	38	15	37
Nurse	195	34	21	35
Paramedic	2	28	1	27
Other Professionals	457	33	125	33
Other White Collar*	522	36	89	36
Blue Collar	338	34	59	33
Military	72	29	14	31
Police/Private I.	102	30	43	29

* Includes managers, government workers, clerks, secretaries, and the self-employed.

Table 5

Race and Ethnicity of Adult Characters in Specific Occupations
in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters									Major Characters								
	Total	White		Black		Asian		Hispanic		Total	White		Black		Asian		Hispanic	
	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%
All Characters	12760	88.5	100.0	8.6	100.0	2.4	100.0	2.2	100.0	2532	91.4	100.0	7.3	100.0	.8	100.0	2.2	100.0
Scientist	59	84.7	.4	1.7	.1	10.2	2.0	.0	.0	19	84.2	.7	.0	.0	5.3	4.8	.0	.0
Technician	79	81.0	.6	8.9	.6	10.1	2.6	.0	.0	4	75.0	.1	.0	.0	25.0	4.8	.0	.0
Doctor	419	89.5	3.3	6.9	2.6	3.3	4.6	.5	.7	104	95.2	4.3	3.8	2.2	1.0	4.8	.0	.0
Nurse	199	86.4	1.5	10.6	1.9	3.0	2.0	1.0	.7	22	95.5	.9	4.5	.5	.0	.0	4.5	1.8
Paramedic	30	83.3	.2	10.0	.3	6.7	.7	3.3	.4	7	100.0	.3	.0	.0	.0	.0	.0	.0
Other Professionals	1723	92.5	14.1	5.5	8.7	1.6	9.3	1.5	9.3	372	95.7	15.4	2.4	4.8	1.3	23.8	1.3	9.1
Other White Collar**	1732	90.5	13.9	6.6	10.5	2.3	12.9	2.1	12.9	374	87.7	14.2	11.0	22.0	1.3	23.8	2.4	16.4
Blue Collar	1464	86.3	11.2	10.4	13.9	3.0	14.6	4.5	23.6	173	87.3	6.5	12.1	11.3	.0	.0	3.5	10.9
Military	574	92.0	4.7	6.3	3.3	.9	1.7	2.3	4.6	102	94.1	4.2	3.9	2.2	.0	.0	1.0	1.8
Police/Private I.	1576	87.1	12.1	10.4	15.0	2.5	12.9	1.8	10.0	377	93.4	15.2	5.6	11.3	.8	14.3	2.1	14.5
Male Characters	9095	88.2	100.0	8.6	100.0	2.6	100.0	2.4	100.0	1746	91.0	100.0	7.6	100.0	.9	100.0	2.5	100.0
Scientist	44	86.4	.3	2.3	.1	6.8	1.3	.0	.0	13	76.9	.6	.0	.0	7.7	6.3	.0	.0
Technician	69	81.2	.7	7.2	.6	11.6	3.4	.0	.0	2	50.0	.1	.0	.0	50.0	6.3	.0	.0
Doctor	384	89.8	4.3	7.3	3.6	2.6	4.3	.5	.9	89	95.5	5.4	4.5	3.0	.0	.0	.0	.0
Nurse	4	75.0	.0	.0	.0	25.0	.4	.0	.0	1	100.0	.1	.0	.0	.0	.0	.0	.0
Paramedic	28	82.1	.3	10.7	.4	7.1	.9	3.6	.5	6	100.0	.4	.0	.0	.0	.0	.0	.0
Other Professionals	1266	92.3	14.6	5.5	8.8	1.7	9.4	1.5	8.8	247	96.0	14.9	2.0	3.8	1.6	25.0	1.2	6.8
Other White Collar**	1210	90.1	13.6	6.8	10.4	2.3	12.0	2.3	12.9	285	86.3	15.5	12.6	27.3	1.1	18.8	2.8	18.2
Blue Collar	1126	86.2	12.1	10.5	15.0	2.9	14.2	4.9	25.3	114	86.8	6.2	12.3	10.6	.0	.0	4.4	11.4
Military	502	92.0	5.8	6.4	4.1	.8	1.7	2.2	5.1	88	94.3	5.2	4.5	3.0	.0	.0	1.1	2.3
Police/Private I.	1474	86.9	16.0	10.4	19.5	2.6	16.7	1.9	12.9	334	93.7	19.7	5.1	12.9	.9	18.8	2.4	18.2
Female Characters	3664	89.4	100.0	8.4	100.0	1.9	100.0	1.7	100.0	786	92.2	100.0	6.9	100.0	.6	100.0	1.4	100.0
Scientist	15	80.0	.4	.0	.0	20.0	4.3	.0	.0	6	100.0	.8	.0	.0	.0	.0	.0	.0
Technician	10	80.0	.2	20.0	.6	.0	.0	.0	.0	2	100.0	.3	.0	.0	.0	.0	.0	.0
Doctor	35	85.7	.9	2.9	.3	11.4	5.8	.0	.0	15	93.3	1.9	.0	.0	6.7	20.0	.0	.0
Nurse	195	86.7	5.2	10.8	6.8	2.6	7.2	1.0	3.2	21	95.2	2.8	4.8	1.9	.0	.0	4.8	9.1
Paramedic	2	100.0	.1	.0	.0	.0	.0	.0	.0	1	100.0	.1	.0	.0	.0	.0	.0	.0
Other Professionals	457	92.8	12.9	5.7	8.4	1.3	8.7	1.5	11.1	125	95.2	16.4	3.2	7.4	.8	20.0	1.6	18.2
Other White Collar**	522	91.4	14.6	6.3	10.7	2.1	15.9	1.5	12.7	89	92.1	11.3	5.6	9.3	2.2	40.0	1.1	9.1
Blue Collar	338	86.7	8.9	10.1	11.0	3.3	15.9	3.3	17.5	59	88.1	7.2	11.9	13.0	.0	.0	1.7	9.1
Military	72	91.7	2.0	5.6	1.3	1.4	1.4	2.8	3.2	14	92.9	1.8	.0	.0	.0	.0	0	0
Police/Private I.	102	89.2	2.8	10.8	3.6	.0	.0	.0	.0	43	90.7	5.4	9.3	7.4	.0	.0	0	0

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

Table 6

Nationality of Adult Characters in Specific Occupations in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters					Major Characters				
	Total	U.S.		Other		Total	U.S.		Other	
	N	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%
All Characters	12760	91.1	100.0	6.7	100.0	2532	93.4	100.0	4.2	100.0
Scientist	59	83.3	.3	16.7	.9	19	83.3	.5	16.7	2.3
Technician	79	100.0	.7	.0	.0	4	100.0	.3	.0	.0
Doctor	419	94.8	3.4	3.5	1.7	104	97.7	4.5	2.3	2.3
Nurse	199	98.9	1.9	1.1	.3	22	100.0	.8	.0	.0
Paramedic	30	100.0	.3	.0	.0	7	100.0	.1	.0	.0
Other Professionals	1723	94.9	14.5	4.1	8.6	372	95.9	14.6	2.8	9.3
Other White Collar**	1732	91.8	13.3	6.8	13.4	374	94.6	16.6	2.4	9.3
Blue Collar	1464	87.8	12.2	8.7	16.6	173	91.3	6.6	2.9	4.7
Military	574	64.6	2.6	30.3	16.9	102	80.0	3.4	15.0	14.0
Police/Private I.	1576	97.0	11.4	2.9	4.6	377	98.4	12.9	1.6	4.7
Male Characters	9095	89.9	100.0	7.6	100.0	1746	92.5	100.0	4.8	100.0
Scientist	44	84.6	.3	15.4	.7	13	100.0	.6	.0	.0
Technician	69	100.0	.8	.0	.0	2	100.0	.3	.0	.0
Doctor	384	94.0	4.4	4.0	2.2	89	97.3	5.8	2.7	3.1
Nurse	4	50.0	.0	50.0	.4	1	.0	.0	.0	.0
Paramedic	28	100.0	.4	.0	.0	6	.0	.0	.0	.0
Other Professionals	1266	93.7	15.0	3.6	6.6	247	96.6	13.7	2.3	6.3
Other White Collar**	1210	91.0	13.5	7.1	12.5	285	93.7	19.0	3.2	12.5
Blue Collar	1126	87.5	13.3	9.2	16.5	114	87.8	5.8	2.4	3.1
Military	502	59.9	3.1	35.3	21.7	88	78.1	4.0	18.8	18.8
Police/Private I.	1474	96.6	15.1	3.2	5.9	334	98.1	16.5	1.9	6.3
Female Characters	3664	93.6	100.0	4.7	100.0	786	93.1	100.0	3.1	100.0
Scientist	15	80.0	.3	20.0	1.3	6	50.0	.3	50.0	9.1
Technician	10	100.0	.3	.0	.0	2	100.0	.3	.0	.0
Doctor	35	100.0	1.4	.0	.0	15	100.0	2.1	.0	.0
Nurse	195	100.0	5.8	.0	.0	21	100.0	2.4	.0	.0
Paramedic	2	100.0	.1	.0	.0	1	100.0	.3	.0	.0
Other Professionals	457	93.3	13.4	5.4	13.4	125	94.7	16.2	3.5	18.2
Other White Collar**	522	93.5	12.9	6.1	16.7	89	97.6	12.0	.0	.0
Blue Collar	338	88.7	10.1	7.3	16.7	59	96.4	8.1	3.6	9.1
Military	72	92.9	1.7	.0	.0	14	87.5	2.1	.0	.0
Police/Private I.	102	100.0	3.6	.0	.0	43	100.0	6.3	.0	.0

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

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Table 7

Character Type for Adult Characters in Specific Occupations
in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters									Major Characters								
	Total	Cannot Code		"Good"		Mixed		"Bad"		Total	Cannot Code		"Good"		Mixed		"Bad"	
	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%
All Characters	12760	11.1	100.0	33.0	100.0	45.3	100.0	10.7	100.0	2532	.0	100.0	57.1	100.0	30.4	100.0	12.5	100.0
Scientist	39	11.9	.3	47.5	.7	33.9	.3	6.8	.3	19	.0	.0	47.4	.6	42.1	1.0	10.5	.6
Technician	79	17.7	1.0	32.9	.6	46.8	.6	2.5	.1	4	.0	.0	50.0	.1	.0	.0	50.0	.6
Doctor	419	8.6	2.5	52.7	5.3	34.8	2.5	3.8	1.2	104	.0	.0	72.1	5.2	24.0	3.3	3.8	1.3
Nurse	199	23.6	3.3	35.2	1.7	39.7	1.4	1.5	.2	22	.0	.0	77.3	1.2	13.6	.4	9.1	.6
Paramedic	30	20.0	.4	63.3	.5	16.7	.1	.0	.0	7	.0	.0	85.7	.4	14.3	.1	.0	.0
Other Professionals	1723	10.9	13.2	34.9	14.3	49.5	14.8	4.7	5.9	372	.0	.0	60.2	15.5	32.0	15.5	7.8	9.2
Other White Collar**	1732	9.1	11.1	28.8	11.9	53.1	15.9	9.1	11.5	374	.3	100.0	41.7	10.8	43.0	20.9	15.0	17.7
Blue Collar	1464	16.1	16.7	28.6	9.9	50.8	12.9	4.5	4.8	173	.0	.0	70.5	8.4	22.0	4.9	7.5	4.1
Military	574	14.1	5.7	31.4	4.3	49.1	4.9	5.4	2.3	102	.0	.0	50.0	3.5	38.2	5.1	11.8	3.8
Police/Private I.	1576	11.0	12.2	50.6	19.0	35.9	9.8	2.5	2.9	377	.0	.0	84.4	22.0	13.5	6.6	2.1	2.5
Male Characters	9095	11.3	100.0	30.9	100.0	44.7	100.0	13.1	100.0	1746	.0	100.0	55.6	100.0	29.4	100.0	15.0	100.0
Scientist	44	13.6	.6	40.9	.6	38.6	.4	6.8	.3	13	.0	.0	30.8	.4	53.8	1.4	15.4	.8
Technician	69	18.8	1.3	31.9	.8	47.8	.8	1.4	.1	2	.0	.0	50.0	.1	.0	.0	50.0	.4
Doctor	384	9.1	3.4	52.1	7.1	34.9	3.3	3.9	1.3	89	.0	.0	75.3	6.9	21.3	3.7	3.4	1.1
Nurse	4	.0	.0	25.0	.0	75.0	.1	.0	.0	1	.0	.0	100.0	.1	.0	.0	.0	.0
Paramedic	28	17.9	.5	67.9	.7	14.3	.1	.0	.0	6	.0	.0	100.0	.6	.0	.0	.0	.0
Other Professionals	1266	12.2	15.1	32.7	14.7	49.8	15.5	5.2	5.5	247	.0	.0	57.9	14.7	33.6	16.2	8.5	8.0
Other White Collar**	1210	8.3	9.7	26.1	11.3	54.5	16.2	11.2	11.3	289	.0	.0	38.9	11.4	43.9	24.4	17.2	18.7
Blue Collar	1126	17.1	18.8	25.3	10.2	52.0	14.4	5.5	5.2	114	.0	.0	69.3	8.1	21.9	4.9	8.8	3.8
Military	502	13.7	6.7	30.3	5.4	50.8	6.3	5.2	2.2	88	.0	.0	50.0	4.5	37.5	6.4	12.5	4.2
Police/Private I.	1474	11.5	16.4	49.3	25.9	36.6	13.3	2.7	3.3	334	.0	.0	83.2	28.6	14.4	9.4	2.4	3.1
Female Characters	3664	10.5	100.0	38.2	100.0	46.7	100.0	4.6	100.0	786	.1	100.0	60.4	100.0	32.6	100.0	6.9	100.0
Scientist	15	6.7	.3	66.7	.7	20.0	.2	6.7	.6	6	.0	.0	83.3	1.1	16.7	.4	.0	.0
Technician	10	10.0	.3	40.0	.3	40.0	.2	10.0	.6	2	.0	.0	50.0	.2	.0	.0	50.0	1.9
Doctor	35	2.9	.3	60.0	1.5	34.3	.7	2.9	.6	15	.0	.0	93.3	1.7	40.0	2.3	6.7	1.9
Nurse	195	24.1	12.2	35.4	4.9	39.0	4.4	1.5	1.8	21	.0	.0	76.2	3.4	14.3	1.2	9.5	3.7
Paramedic	2	50.0	.3	.0	.0	50.0	.1	.0	.0	1	.0	.0	.0	.0	100.0	.4	.0	.0
Other Professionals	457	7.0	8.3	41.1	13.4	48.6	13.0	3.3	8.9	125	.0	.0	64.8	17.1	28.8	14.1	6.4	14.8
Other White Collar**	522	10.9	14.8	35.1	13.1	49.8	15.2	4.2	13.0	89	1.1	100.0	50.6	9.5	40.4	14.1	7.9	13.0
Blue Collar	338	12.7	11.1	39.3	9.5	46.7	9.2	1.2	2.4	59	.0	.0	72.9	9.1	22.0	5.1	5.1	5.6
Military	72	16.7	3.1	38.9	2.0	37.5	1.6	6.9	3.0	14	.0	.0	50.0	1.5	42.9	2.3	7.1	1.9
Police/Private I.	102	3.9	1.0	70.6	5.1	25.5	1.5	.0	.0	43	.0	.0	93.0	8.4	7.0	1.2	.0	.0

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

Table 8

Success of Adult Characters in Specific Occupations in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters									Major Characters								
	Total	Cannot Code		Success Clear		Success Mixed		Not Successful		Total	Cannot Code		Success Clear		Success Mixed		Not Successful	
	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%
All Characters	12760	14.2	100.0	23.5	100.0	44.6	100.0	17.8	100.0	2532	.0	100.0	40.4	100.0	41.5	100.0	18.0	100.0
Scientist	39	13.6	.4	28.8	.6	33.9	.4	23.7	.6	19	.0	.0	47.4	.9	26.3	.5	26.3	1.1
Technician	79	22.8	1.0	35.4	.9	35.4	.5	6.3	.2	4	.0	.0	50.0	.2	.0	.0	50.0	.4
Doctor	419	13.1	3.0	32.9	4.6	43.2	3.2	10.7	2.0	104	.0	.0	49.0	5.0	40.4	4.0	10.6	2.4
Nurse	199	30.7	3.4	24.6	1.6	38.7	1.4	6.0	.5	22	.0	.0	63.6	1.4	27.3	.6	9.1	.4
Paramedic	30	33.3	.6	30.0	.3	33.3	.2	3.3	.0	7	.0	.0	85.7	.6	14.3	.1	.0	.0
Other Professionals	1723	12.5	11.9	27.0	15.5	46.7	14.2	13.8	10.5	372	.0	.0	44.9	16.3	39.8	14.1	15.3	12.5
Other White Collar**	1732	13.1	12.5	22.6	13.0	49.7	15.1	14.7	11.2	374	.0	.0	32.9	12.0	49.5	17.6	17.6	14.4
Blue Collar	1464	18.7	15.1	20.4	9.9	48.0	12.4	12.9	8.3	173	.0	.0	41.0	6.9	46.8	7.7	12.1	4.6
Military	574	17.8	5.6	24.2	4.6	42.0	4.2	16.0	4.1	102	.0	.0	38.2	3.8	41.2	4.0	20.6	4.6
Police/Private I.	1576	14.6	12.7	34.8	18.3	41.1	11.4	9.5	6.6	377	.0	.0	61.0	22.5	31.6	11.3	7.4	6.1
Male Characters	9095	14.2	100.0	23.2	100.0	42.8	100.0	19.8	100.0	1746	.0	100.0	40.0	100.0	39.9	100.0	20.1	100.0
Scientist	44	15.9	.5	31.8	.7	27.3	.3	25.0	.6	13	.0	.0	53.8	1.0	15.4	.3	30.8	1.1
Technician	69	24.6	1.3	34.8	1.1	36.2	.6	4.3	.2	2	.0	.0	50.0	.1	.0	.0	50.0	.3
Doctor	384	13.8	4.1	33.6	6.1	41.9	4.1	10.7	2.3	89	.0	.0	50.6	6.4	39.3	5.0	10.1	2.6
Nurse	4	.0	.0	25.0	.0	75.0	.1	.0	.0	1	.0	.0	.0	.0	100.0	.1	.0	.0
Paramedic	28	32.1	.7	28.6	.4	35.7	.3	3.6	.1	6	.0	.0	83.3	.7	16.7	.1	.0	.0
Other Professionals	1266	13.8	13.6	26.9	16.1	44.8	14.6	14.5	10.2	247	.0	.0	43.3	15.3	40.5	14.4	16.2	11.4
Other White Collar**	1210	11.3	10.6	22.1	12.6	48.9	15.2	17.7	11.9	285	.0	.0	29.5	12.0	51.9	21.3	18.6	15.1
Blue Collar	1126	19.5	17.1	19.4	10.4	46.8	13.5	14.2	8.9	114	.0	.0	42.1	6.9	42.1	6.9	15.8	5.1
Military	502	17.9	7.0	22.1	5.3	42.8	5.5	17.1	4.8	88	.0	.0	36.4	4.6	40.9	5.2	22.7	5.7
Police/Private I.	1474	15.2	17.4	33.6	23.5	41.2	15.6	10.0	8.2	334	.0	.0	59.1	27.8	33.5	16.1	8.4	8.0
Female Characters	3664	14.2	100.0	24.2	100.0	49.0	100.0	12.6	100.0	786	.1	100.0	41.2	100.0	45.2	100.0	13.5	100.0
Scientist	15	6.7	.2	20.0	.3	53.3	.4	20.0	.6	6	.0	.0	33.3	.6	50.0	.8	16.7	.9
Technician	10	10.0	.2	40.0	.5	30.0	.2	20.0	.4	2	.0	.0	50.0	.3	.0	.0	50.0	.9
Doctor	35	5.7	.4	25.7	1.0	57.1	1.1	11.4	.9	15	.0	.0	40.0	1.9	46.7	2.0	13.3	1.9
Nurse	195	31.3	11.8	24.6	5.4	37.9	4.1	6.2	2.6	21	.0	.0	66.7	4.3	23.8	1.4	9.5	1.9
Paramedic	2	50.0	.2	50.0	.1	.0	.0	.0	.0	1	.0	.0	100.0	.3	.0	.0	.0	.0
Other Professionals	457	8.8	7.7	27.6	14.2	52.1	13.3	11.6	11.4	125	.0	.0	48.0	18.5	38.4	13.5	13.6	16.0
Other White Collar**	522	17.2	17.3	23.8	14.0	51.3	14.9	7.7	8.6	89	.0	.0	43.8	12.0	41.6	10.4	14.6	12.3
Blue Collar	338	16.0	10.4	23.4	8.9	52.1	9.8	8.6	6.3	59	.0	.0	39.0	7.1	55.9	9.3	5.1	2.8
Military	72	16.7	2.3	38.9	3.2	36.1	1.4	8.3	1.3	14	.0	.0	50.0	2.2	42.9	1.7	7.1	.9
Police/Private I.	102	5.9	1.2	52.0	6.0	39.2	2.2	2.9	.6	43	.0	.0	83.7	11.1	16.3	2.0	.0	.0

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

Table 9

Violence Committed By Adult Characters in Specific Occupations in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters							Major Characters						
	Total	Does Not Commit		Commits Nonfatal		Commits Fatal		Total	Does Not Commit		Commits Nonfatal		Commits Fatal	
	N	Row%	Col%	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%	Row%	Col%
All Characters	12760	81.2	100.0	15.8	100.0	3.0	100.0	2532	58.6	100.0	32.7	100.0	8.7	100.0
Scientist	39	78.0	.4	16.9	.5	5.1	.8	19	42.1	.5	42.1	1.0	15.8	1.4
Technician	79	96.2	.7	2.5	.1	1.3	.3	4	25.0	.1	50.0	.2	25.0	.5
Doctor	419	93.8	3.8	5.5	1.1	.7	.8	104	83.7	5.9	14.4	1.8	1.9	.9
Nurse	199	94.0	1.8	5.0	.5	1.0	.5	22	81.8	1.2	13.6	.4	4.5	.5
Paramedic	30	93.3	.3	6.7	.1	.0	.0	7	85.7	.4	14.3	.1	.0	.0
Other Professionals	1723	90.2	15.0	8.6	7.3	1.2	5.4	372	69.9	17.5	26.1	11.7	4.0	6.8
Other White Collar**	1732	89.1	14.9	8.7	7.4	2.2	9.8	374	73.5	18.5	21.9	9.9	4.5	7.7
Blue Collar	1464	88.3	12.5	10.4	7.5	1.3	4.9	173	66.5	7.8	30.1	6.3	3.5	2.7
Military	574	81.4	4.5	15.0	4.3	3.7	5.4	102	61.8	4.2	28.4	3.5	9.8	4.5
Police/Private I.	1576	63.5	9.7	32.0	25.0	4.6	18.6	377	25.7	6.5	60.5	27.9	13.8	23.5
Male Characters	9095	77.5	100.0	18.7	100.0	3.8	100.0	1746	52.6	100.0	36.5	100.0	10.9	100.0
Scientist	44	79.5	.5	18.2	.5	2.3	.3	13	38.5	.5	53.8	1.1	7.7	.5
Technician	69	98.6	1.0	1.4	.1	.0	.0	2	50.0	.1	50.0	.2	.0	.0
Doctor	384	94.0	5.1	5.5	1.2	.5	.6	89	84.3	8.2	14.6	2.0	1.1	.5
Nurse	4	75.0	.0	25.0	.1	.0	.0	1	100.0	.1	.0	.0	.0	.0
Paramedic	28	92.9	.4	7.1	.1	.0	.0	6	83.3	.5	16.7	.2	.0	.0
Other Professionals	1266	90.0	16.2	8.8	6.5	1.3	4.7	247	66.8	18.0	28.3	11.0	4.9	6.3
Other White Collar**	1210	86.7	14.9	10.2	7.3	3.1	10.8	285	71.2	22.1	22.8	10.2	6.0	8.9
Blue Collar	1126	87.1	13.9	11.3	7.5	1.6	5.2	114	64.0	7.9	30.7	5.5	5.3	3.2
Military	502	81.5	5.8	15.1	4.5	3.4	5.0	88	63.6	6.1	26.1	3.6	10.2	4.7
Police/Private I.	1474	63.6	13.3	31.7	27.4	4.7	20.4	334	24.6	8.9	60.5	31.7	15.0	26.3
Female Characters	3664	90.3	100.0	8.5	100.0	1.2	100.0	786	71.8	100.0	24.3	100.0	3.9	100.0
Scientist	15	73.3	.3	13.3	.6	13.3	4.4	6	50.0	.5	16.7	.5	33.3	6.5
Technician	10	80.0	.2	10.0	.3	10.0	2.2	2	.0	.0	50.0	.5	50.0	3.2
Doctor	35	91.4	1.0	5.7	.6	2.9	2.2	15	80.0	2.1	13.3	1.0	6.7	3.2
Nurse	195	94.4	5.6	4.6	2.9	1.0	4.4	21	81.0	3.0	14.3	1.6	4.8	3.2
Paramedic	2	100.0	.1	.0	.0	.0	.0	1	100.0	.2	.0	.0	.0	.0
Other Professionals	457	90.8	12.5	8.1	11.9	1.1	11.1	125	76.0	16.8	21.6	14.1	2.4	9.7
Other White Collar**	522	94.8	15.0	5.0	8.3	.2	2.2	89	80.9	12.8	19.1	8.9	.0	.0
Blue Collar	338	92.3	9.4	7.4	8.0	.3	2.2	59	71.2	7.4	28.8	8.9	.0	.0
Military	72	80.6	1.8	13.9	3.2	5.6	8.9	14	50.0	1.2	42.9	3.1	7.1	3.2
Police/Private I.	102	61.8	1.9	36.3	11.9	2.0	4.4	43	34.9	2.7	60.5	13.6	4.7	6.5

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

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Table 10

Victimization of Adult Characters in Specific Occupations in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters							Major Characters						
	Total	Does Not Suffer		Suffers Nonfatal		Killed		Total	Does Not Suffer		Suffers Nonfatal		Killed	
	N	Row%	Col%	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%	Row%	Col%
All Characters	12760	77.2	100.0	18.7	100.0	4.0	100.0	2532	55.9	100.0	39.9	100.0	4.2	100.0
Scientist	59	72.9	.4	16.9	.4	10.2	1.2	19	47.4	.6	42.1	.8	10.5	1.9
Technician	79	94.9	.8	3.8	.1	1.3	.2	4	50.0	.1	50.0	.2	.0	.0
Doctor	419	92.1	3.9	6.7	1.2	1.2	1.0	104	85.6	6.3	12.5	1.3	1.9	1.9
Nurse	199	94.5	1.9	4.5	.4	1.0	.4	22	72.7	1.1	27.3	.6	.0	.0
Paramedic	30	86.7	.3	6.7	.1	6.7	.4	7	85.7	.4	14.3	.1	.0	.0
Other Professionals	1723	83.5	14.6	12.9	9.3	3.5	11.9	372	64.2	16.9	33.3	12.3	2.4	8.4
Other White Collar**	1732	83.2	14.6	14.0	10.2	2.8	9.4	374	65.8	17.4	31.6	11.7	2.7	9.3
Blue Collar	1464	84.4	12.5	12.4	7.6	3.1	9.0	173	67.6	8.3	30.1	5.1	2.3	3.7
Military	574	76.8	4.5	20.4	4.9	2.8	3.1	102	54.9	4.0	38.2	3.9	6.9	6.5
Police/Private I.	1576	73.0	11.7	23.9	15.8	3.0	9.4	377	37.4	10.0	39.4	22.2	3.2	11.2
Male Characters	9095	74.2	100.0	21.1	100.0	4.7	100.0	1746	50.1	100.0	44.8	100.0	5.0	100.0
Scientist	44	75.0	.5	11.4	.3	13.6	1.4	13	53.8	.8	30.8	.5	15.4	2.3
Technician	69	97.1	1.0	1.4	.1	1.4	.2	2	50.0	.1	50.0	.1	.0	.0
Doctor	384	91.9	5.2	7.0	1.4	1.0	.9	89	85.4	8.7	13.5	1.5	1.1	1.1
Nurse	4	75.0	.0	25.0	.1	.0	.0	1	.0	.0	100.0	.1	.0	.0
Paramedic	28	85.7	.4	7.1	.1	7.1	.5	6	83.3	.6	16.7	.1	.0	.0
Other Professionals	1266	84.0	15.8	12.3	8.1	3.7	10.9	247	61.9	17.5	35.2	11.1	2.8	8.0
Other White Collar**	1210	79.5	14.3	16.9	10.6	3.6	10.2	285	61.4	20.0	35.8	13.0	2.8	9.1
Blue Collar	1126	83.1	13.9	13.2	7.8	3.6	9.5	114	63.2	8.2	34.2	5.0	2.6	3.4
Military	502	73.9	5.6	20.9	5.5	3.2	3.7	88	53.4	5.4	38.6	4.3	8.0	8.0
Police/Private I.	1474	73.2	16.0	23.5	18.1	3.3	11.1	334	35.9	13.7	60.5	25.8	3.6	13.6
Female Characters	3664	84.9	100.0	12.9	100.0	2.2	100.0	786	68.7	100.0	28.9	100.0	2.4	100.0
Scientist	15	66.7	.3	33.3	1.1	.0	.0	6	33.3	.4	66.7	1.8	.0	.0
Technician	10	80.0	.3	20.0	.4	.0	.0	2	50.0	.2	50.0	.4	.0	.0
Doctor	35	94.3	1.1	2.9	.2	2.9	1.3	15	86.7	2.4	6.7	.4	6.7	5.3
Nurse	195	94.9	5.9	4.1	1.7	1.0	2.5	21	76.2	3.0	23.8	2.2	.0	.0
Paramedic	2	100.0	.1	.0	.0	.0	.0	1	100.0	.2	.0	.0	.0	.0
Other Professionals	457	82.3	12.1	14.7	14.1	3.1	17.5	125	68.8	15.9	29.6	16.3	1.6	10.5
Other White Collar**	522	91.8	15.4	7.5	8.2	.8	5.0	89	79.8	13.1	18.0	7.0	2.2	10.5
Blue Collar	338	88.8	9.6	9.8	7.0	1.5	6.3	59	76.3	8.3	22.0	5.7	1.7	5.3
Military	72	83.3	1.9	16.7	2.5	.0	.0	14	64.3	1.7	35.7	2.2	.0	.0
Police/Private I.	102	70.6	2.3	29.4	6.3	.0	.0	43	48.8	3.9	51.2	9.7	.0	.0

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

Table 11

Good-Bad, Success-Failure, and Risk Ratios
for Adult Major Characters in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters					Major Characters				
	Total	Good Bad	Success Failure	Violent Victim	Killer Killed	Total	Good Bad	Success Failure	Violent Victim	Killer Killed
All Characters	12760	+ 3.07	+ 1.32	- 1.21	- 1.33	2532	+ 4.57	+ 2.24	- 1.06	+ 2.07
Scientist	59	+ 6.98	+ 1.22	- 1.23	- 2.00	19	+ 4.51	+ 1.80	+ 1.10	+ 1.50
Technician	79	+13.00	+ 5.56	- 1.34	1.00	4	1.00	1.00	+ 1.50	+ 0.00
Doctor	419	+13.89	+ 3.13	- 1.31	- 1.71	104	+18.87	+ 4.72	+ 1.07	1.00
Nurse	199	+23.33	+ 4.08	+ 1.09	1.00	22	+ 8.49	+ 6.99	- 1.51	+ 0.00
Paramedic	30	+ 0.00	+ 9.09	- 2.00	- 0.00	7	+ 0.00	+ 0.00	1.00	0.00
Other Professionals	1723	+ 6.38	+ 1.88	- 1.62	- 2.47	372	+ 6.91	+ 2.87	- 1.21	+ 1.75
Other White Collar**	1732	+ 3.24	+ 1.59	- 1.60	- 1.19	374	+ 2.74	+ 1.87	- 1.29	+ 1.81
Blue Collar	1464	+ 6.27	+ 1.55	- 1.33	- 2.36	173	+ 9.53	+ 3.27	+ 1.03	+ 1.74
Military	574	+ 5.15	+ 1.47	- 1.12	+ 1.24	102	+ 3.93	+ 1.77	- 1.18	+ 1.43
Police/Private I.	1576	+17.93	+ 3.71	+ 1.37	+ 1.53	377	+40.20	+ 8.26	+ 1.18	+ 4.31
Male Characters	9095	+ 2.35	+ 1.17	- 1.14	- 1.24	1746	+ 3.71	+ 1.99	- 1.05	+ 2.18
Scientist	44	+ 6.01	+ 1.27	- 1.22	- 3.91	13	+ 2.00	+ 1.75	+ 1.33	- 2.00
Technician	69	+22.40	+ 7.98	- 2.00	- 0.00	2	1.00	1.00	1.00	0.00
Doctor	384	+13.31	+ 3.21	- 1.39	- 2.00	89	+22.33	+ 5.00	1.00	1.00
Nurse	4	+ 0.00	+ 0.00	- 1.00	0.00	1	+ 0.00	0.00	- 0.00	0.00
Paramedic	28	+ 0.00	+ 7.94	- 2.00	- 0.00	6	+ 0.00	+ 0.00	1.00	0.00
Other Professionals	1266	+ 5.36	+ 1.76	- 1.54	- 2.38	247	+ 6.04	+ 2.62	- 1.17	+ 2.00
Other White Collar**	1210	+ 2.35	+ 1.28	- 1.60	- 1.17	285	+ 2.18	+ 1.35	- 1.33	+ 1.87
Blue Collar	1126	+ 4.45	+ 1.34	- 1.31	- 2.24	114	+ 8.02	+ 2.32	- 1.02	+ 2.31
Military	502	+ 5.07	+ 1.25	- 1.28	1.00	88	+ 3.66	+ 1.33	- 1.27	+ 1.28
Police/Private I.	1474	+16.83	+ 3.40	+ 1.37	+ 1.47	334	+34.71	+ 6.93	+ 1.17	+ 4.14
Female Characters	3664	+ 8.11	+ 1.91	- 1.57	- 1.83	786	+ 8.75	+ 3.05	- 1.11	+ 1.62
Scientist	15	+ 9.96	1.00	- 1.25	+ 0.00	6	+ 0.00	+ 1.99	1.00	1.00
Technician	10	+ 4.00	+ 2.00	1.00	+ 0.00	2	1.00	1.00	1.00	1.00
Doctor	35	+21.82	+ 2.50	+ 1.50	1.00	15	+ 8.94	+ 3.50	+ 1.49	1.00
Nurse	195	+23.47	+ 4.02	+ 1.10	1.00	21	+ 8.02	+ 7.02	- 1.25	+ 0.00
Paramedic	2	0.00	+ 0.00	0.00	0.00	1	0.00	+ 0.00	0.00	0.00
Other Professionals	457	+12.30	+ 2.37	- 1.88	- 2.34	125	+ 9.41	+ 3.51	- 1.30	1.00
Other White Collar**	522	+ 8.49	+ 3.04	- 1.70	- 3.00	89	+ 6.96	+ 3.09	- 1.06	1.00
Blue Collar	338	+32.67	+ 2.77	- 1.44	- 5.00	59	+14.66	+ 8.00	+ 1.21	- 0.00
Military	72	+ 5.36	+ 4.67	+ 1.17	+ 0.00	14	+ 7.04	+ 7.04	+ 1.40	+ 0.00
Police/Private I.	102	+ 0.00	+17.90	+ 1.33	+ 0.00	43	+ 0.00	+ 0.00	+ 1.27	+ 0.00

* Risk ratios are obtained by dividing the more numerous of two roles by the less numerous within each group. A plus sign indicates that there are more "good", successful, violents or killers than "bad", unsuccessful, victims or killed and a minus sign indicates that there are more "bad", unsuccessful, victims or killed than "good", successful, violents or killers. A ratio of 0.00 means that there were no "bad", unsuccessful, victims or killed or "good", successful, violents or killers. A +0.00 ratio means that there were some "good", successful, violents or killers but no "bad", unsuccessful, victims or killed; a -0.00 ratio means that there were "bad", unsuccessful, victims or killed but no "good", successful, violents or killers.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

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Table 12

Marital Status of Adult Characters in Specific Occupations in Prime-Time Network Dramatic Programs* (1973-1983)

	All Characters									Major Characters								
	Total	Cannot Code		Not Married		Married		Formerly Married		Total	Cannot Code		Not Married		Married		Formerly Married	
	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%	N	Row%	Col%	Row%	Col%	Row%	Col%	Row%	Col%
All Characters	11047	62.5	100.0	21.7	100.0	11.2	100.0	4.0	100.0	2114	25.4	100.0	43.3	100.0	18.9	100.0	10.9	100.0
Scientist	36	71.4	.6	19.6	.5	1.8	.1	7.1	.9	18	38.9	1.3	50.0	1.0	.0	.0	11.1	.9
Technician	74	90.5	1.0	4.1	.1	2.7	.2	2.7	.5	4	25.0	.2	25.0	.1	.0	.0	50.0	.9
Doctor	352	72.4	3.7	13.9	2.0	10.2	2.9	2.8	2.3	82	28.0	4.3	37.8	3.4	24.4	5.0	7.3	2.6
Nurse	168	78.6	1.9	13.7	1.0	3.0	.4	4.8	1.8	15	13.3	.4	46.7	.8	13.3	.5	26.7	1.7
Paramedic	24	91.7	.3	8.3	.1	.0	.0	.0	.0	5	60.0	.6	40.0	.2	.0	.0	.0	.0
Other Professionals	1500	66.1	14.3	22.3	13.9	7.5	9.1	3.4	11.7	298	21.5	11.9	49.7	16.2	16.8	12.5	9.4	12.1
Other White Collar**	1484	65.0	14.0	14.8	9.1	14.8	17.6	4.9	16.5	305	24.3	13.8	31.8	10.6	27.2	20.8	15.4	20.3
Blue Collar	1240	74.4	13.3	17.2	8.9	5.7	5.7	2.3	6.6	143	17.5	4.7	58.0	9.1	14.0	5.0	9.8	6.1
Military	540	80.0	6.3	14.1	3.2	4.6	2.0	.9	1.1	92	31.1	8.8	32.6	3.3	13.0	3.0	2.2	.9
Police/Private I.	1310	78.6	14.9	15.1	8.3	4.0	4.3	2.1	6.4	309	45.3	26.1	38.8	13.1	6.8	5.3	8.7	11.7
Male Characters	7806	70.8	100.0	17.5	100.0	8.6	100.0	2.6	100.0	1443	31.8	100.0	40.7	100.0	17.4	100.0	9.0	100.0
Scientist	41	75.6	.6	12.2	.4	2.4	.1	9.8	1.9	12	41.7	1.1	41.7	.9	.0	.0	16.7	1.5
Technician	64	96.9	1.1	1.6	.1	.0	.0	1.6	.5	2	50.0	.2	.0	.0	.0	.0	50.0	.8
Doctor	321	73.2	4.3	12.8	3.0	10.9	5.2	2.8	4.4	70	27.1	4.1	37.1	4.4	27.1	7.6	7.1	3.8
Nurse	3	66.7	.0	33.3	.1	.0	.0	.0	.0	0	.0	.0	.0	.0	.0	.0	.0	.0
Paramedic	22	95.5	.4	4.5	.1	.0	.0	.0	.0	4	75.0	.7	25.0	.2	.0	.0	.0	.0
Other Professionals	1086	73.7	14.5	16.2	12.9	7.3	11.7	2.3	12.1	195	26.2	11.1	44.1	14.6	19.5	15.1	8.2	12.3
Other White Collar**	1027	66.8	12.4	11.4	8.6	16.8	25.6	4.2	20.9	232	28.0	14.2	26.7	10.5	30.2	27.9	13.4	23.8
Blue Collar	943	80.0	13.6	13.5	9.3	4.8	6.7	1.6	7.3	90	18.9	3.7	55.6	8.5	17.8	6.4	7.8	5.4
Military	469	81.2	6.9	12.6	4.3	4.9	3.4	1.1	2.4	78	32.6	8.9	29.5	3.9	15.4	4.8	2.6	1.5
Police/Private I.	1216	80.5	17.7	13.4	11.9	4.1	7.4	1.9	11.2	269	46.5	27.2	37.5	17.2	7.1	7.6	8.6	17.7
Female Characters	3240	42.5	100.0	31.9	100.0	17.5	100.0	7.1	100.0	671	11.6	100.0	48.9	100.0	22.1	100.0	15.1	100.0
Scientist	15	60.0	.7	40.0	.6	.0	.0	.0	.0	6	33.3	2.6	66.7	1.2	.0	.0	.0	.0
Technician	10	50.0	.4	20.0	.2	20.0	.4	10.0	.4	2	.0	.0	50.0	.3	.0	.0	50.0	1.0
Doctor	31	64.5	1.5	25.8	.8	3.2	.2	3.2	.4	12	33.3	5.1	41.7	1.5	8.3	.7	8.3	1.0
Nurse	165	78.8	9.4	13.3	2.1	3.0	.9	4.8	3.5	15	13.3	2.6	46.7	2.1	13.3	1.4	26.7	4.0
Paramedic	2	50.0	.1	50.0	.1	.0	.0	.0	.0	1	.0	.0	100.0	.3	.0	.0	.0	.0
Other Professionals	414	46.1	13.9	38.2	15.3	8.2	6.0	6.3	11.3	103	12.6	16.7	60.2	18.9	11.7	8.1	11.7	11.9
Other White Collar**	457	60.8	20.2	22.3	9.9	10.1	8.1	6.3	12.6	73	12.3	11.5	47.9	10.7	17.8	8.8	21.9	15.8
Blue Collar	297	56.6	12.2	29.0	8.3	8.8	4.6	4.7	6.1	53	15.1	10.3	62.3	10.1	7.5	2.7	13.2	6.9
Military	71	71.8	3.7	23.9	1.6	2.8	.4	.0	.0	14	42.9	7.7	50.0	2.1	.0	.0	.0	.0
Police/Private I.	94	54.3	3.7	37.2	3.4	3.2	.5	5.3	2.2	40	37.5	19.2	47.5	5.8	5.0	1.4	10.0	4.0

* The row percentages reflect the percent of all characters, men, or women, within a particular occupation who are categorized in that content category.

** Includes managers, government workers, clerks, secretaries, and the self-employed.

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Table 13

Mean Scores on Personality Traits**
for All Major Adult Characters in Specific Occupations
in Prime-Time Network Dramatic Programs (1973-1983)

	All Characters	Scientist	Technician	Doctor	Nurse	Paramedic	Other Professionals	Other White Collar*	Blue Collar	Military	Police/Private I.
All Characters											
N =	2532	19	4	104	22	7	372	374	173	102	377
	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$
Warmth	3.4	3.1	3.0	3.7	3.9	3.4	3.6	3.2	3.7	3.2	3.6
Fairness	3.3	3.3	3.0	3.7	3.5	4.0	3.4	3.0	3.6	3.2	3.7
Sociability	3.6	3.0	3.0	3.8	3.9	4.0	3.7	3.4	3.8	3.4	3.8
Attractiveness	3.6	3.5	3.2	3.7	3.9	3.7	3.7	3.5	3.6	3.4	3.8
Strength	3.6	3.7	3.2	3.5	3.3	3.9	3.6	3.4	3.6	3.5	3.9
Power	3.5	3.6	3.5	3.7	3.4	3.4	3.4	3.4	3.4	3.4	3.9
Stature	3.4	3.3	3.0	3.4	3.1	3.4	3.5	3.4	3.4	3.5	3.6
Smartness	3.6	4.1	4.0	4.2	3.6	3.7	3.7	3.5	3.4	3.5	3.9
Rationality	3.4	3.5	2.5	3.8	3.5	3.6	3.5	3.3	3.4	3.2	3.8
Stability	3.4	3.5	2.5	3.8	3.8	3.6	3.5	3.3	3.5	3.2	3.8
Efficiency	3.4	3.5	3.5	3.8	3.8	3.7	3.5	3.3	3.4	3.4	3.8
Sex Appeal	3.4	3.2	2.8	3.8	2.0	3.9	3.2	3.4	3.4	3.8	3.9
Youthfulness	3.2	3.1	3.5	3.0	3.2	3.6	3.2	3.0	3.3	3.1	3.2
Happiness	2.9	2.9	1.8	3.1	3.0	3.6	3.0	2.9	3.1	2.9	2.9
Affluence	3.1	3.3	3.0	3.4	3.0	3.0	3.2	3.4	2.9	3.0	3.1
Cleanliness	3.5	3.5	3.2	3.8	3.8	3.7	3.6	3.5	3.4	3.2	3.5
Peacefulness	3.1	3.1	2.5	3.7	3.8	3.6	3.4	3.2	3.2	3.0	2.7
Supportiveness	3.4	3.4	3.5	3.7	3.7	3.0	3.5	3.2	3.8	3.4	3.8

* Includes managers, government workers, clerks, secretaries, and the self-employed.

** Personality traits are coded as bipolar adjective scales. The higher the score, the more a character exhibits the specific attribute. The one exception is the sex appeal scale, where a higher score indicates more "masculine" and a lower score indicates more "feminine".

Table 14

Mean Scores on Personality Traits**
for Male and Female Major Adult Characters in Specific Occupations
in Prime-Time Network Dramatic Programs (1973-1983)

	All Characters	Scientist	Technician	Doctor	Nurse	Paramedic	Other Professionals	Other White Collar*	Blue Collar	Military	Police/ Private I.
Male Characters											
N =	1746	13	2	89	1	6	247	285	114	88	334
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
Warmth	3.4	2.8	2.5	3.7	4.0	3.3	3.5	3.2	3.7	3.1	3.6
Fairness	3.2	3.0	3.0	3.7	4.0	4.2	3.4	3.0	3.6	3.2	3.7
Sociability	3.5	3.0	2.5	3.8	4.0	4.0	3.7	3.4	3.7	3.3	3.7
Attractiveness	3.5	3.2	2.5	3.7	4.0	3.7	3.5	3.3	3.6	3.3	3.7
Strength	3.6	3.7	3.0	3.5	4.0	4.0	3.6	3.4	3.7	3.5	4.0
Power	3.6	3.8	4.0	3.7	3.0	3.5	3.5	3.4	3.5	3.4	4.0
Stature	3.5	3.3	3.0	3.5	3.0	3.5	3.5	3.4	3.5	3.5	3.6
Smartness	3.6	3.9	4.5	4.2	4.0	3.7	3.7	3.5	3.5	3.5	3.9
Rationality	3.4	3.3	2.5	3.8	4.0	3.7	3.5	3.3	3.5	3.2	3.8
Stability	3.4	3.4	2.0	3.8	4.0	3.7	3.5	3.3	3.5	3.0	3.8
Efficiency	3.4	3.2	4.0	3.7	4.0	3.7	3.4	3.2	3.4	3.3	3.8
Sex Appeal	4.0	3.9	3.5	4.1	2.0	4.2	4.0	3.9	4.0	4.0	4.2
Youthfulness	3.1	2.8	3.5	3.0	4.0	3.7	3.2	2.9	3.2	3.1	3.2
Happiness	2.9	2.8	1.5	3.1	3.0	3.7	2.9	2.8	3.1	2.8	2.8
Affluence	3.1	3.3	3.0	3.4	3.0	3.0	3.1	3.4	2.9	3.0	3.1
Cleanliness	3.4	3.4	3.0	3.9	4.0	3.8	3.5	3.4	3.3	3.2	3.5
Peacefulness	3.0	3.2	2.5	3.7	4.0	3.7	3.3	3.1	3.1	2.9	2.7
Supportiveness	3.4	3.1	3.5	3.7	—	3.2	3.4	3.2	3.7	3.4	3.9
Female Characters											
N =	786	6	2	15	21	1	125	89	39	14	43
	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$
Warmth	3.6	3.5	3.5	3.8	3.9	4.0	3.6	3.4	3.8	3.4	4.0
Fairness	3.4	3.8	3.0	3.6	3.5	3.0	3.4	3.1	3.4	3.3	3.8
Sociability	3.8	3.0	3.5	3.8	3.9	4.0	3.8	3.7	3.9	3.6	4.1
Attractiveness	3.9	4.2	4.0	4.0	3.9	4.0	4.1	3.9	3.7	3.9	4.4
Strength	3.4	3.7	3.5	3.8	3.3	3.0	3.4	3.3	3.4	3.5	3.7
Power	3.3	3.3	3.0	3.8	3.4	3.0	3.4	3.4	3.2	3.6	3.7
Stature	3.2	3.2	3.0	3.0	3.1	3.0	3.3	3.3	3.3	3.4	3.3
Smartness	3.5	4.5	3.5	4.4	3.6	4.0	3.7	3.6	3.3	3.4	3.9
Rationality	3.3	3.8	2.5	3.9	3.4	3.0	3.4	3.3	3.2	3.1	3.8
Stability	3.3	3.7	3.0	3.8	3.8	3.0	3.5	3.2	3.3	3.2	3.7
Efficiency	3.4	4.2	3.0	4.2	3.8	4.0	3.5	3.5	3.4	3.6	3.7
Sex Appeal	1.9	1.7	2.0	2.1	2.0	2.0	1.8	1.9	2.1	2.1	1.8
Youthfulness	3.3	3.8	3.5	2.9	3.2	3.0	3.4	3.2	3.4	3.5	3.4
Happiness	3.0	3.0	2.0	3.0	3.0	3.0	3.1	2.9	3.1	3.2	3.2
Affluence	3.2	3.2	3.0	3.1	3.0	3.0	3.3	3.3	2.8	3.0	3.1
Cleanliness	3.7	3.7	3.5	3.6	3.8	3.0	3.7	3.6	3.7	3.3	3.8
Peacefulness	3.4	2.8	2.5	3.8	3.8	3.0	3.5	3.4	3.4	3.1	3.0
Supportiveness	3.6	4.0	3.5	3.9	3.7	2.0	3.5	3.5	3.8	3.4	3.7

* Includes managers, government workers, clerks, secretaries, and the self-employed.

** See footnote on Table 13.

Table 15

Distribution of the Sample on Measures of Television Viewing

	Television Viewing								
	Hrs./Day	Light		Medium		Heavy		Total	
		N	%	N	%	N	%	N	%
Overall	2.9	376	(22.8)	797	(48.5)	420	(28.7)	1643	100.0
Sex									
Male	2.6	209	55.7	393	49.4	178	37.8	780	47.5
Female	3.1	166	44.3	404	50.6	292	62.2	862	52.5
Age									
18-34	3.1	120	32.3	313	39.6	204	43.7	637	39.1
35-54	2.5	133	35.9	251	31.7	106	22.7	490	30.1
55 and older	2.9	118	31.8	227	28.7	157	33.6	502	30.8
Education									
High School or less	3.1	206	54.9	504	63.6	374	79.5	1084	66.1
Some College	2.4	170	45.1	289	36.4	96	20.5	555	33.9
Race									
White	2.7	328	88.2	684	86.7	348	74.6	1361	83.6
Non-white	3.6	44	11.8	105	13.3	119	25.4	268	16.4
Household Income									
Under $15,000	3.2	94	26.0	207	27.8	170	38.9	471	30.5
$15,000 - $24,999	3.1	68	18.9	199	26.7	118	27.0	385	25.0
$25,000 - $35,000	2.7	79	21.9	158	21.2	84	19.2	321	20.8
Over $35,000	2.4	119	33.2	182	24.4	65	14.9	366	23.7
Newspaper Reading									
Rarely/Never	3.1	57	15.3	126	15.8	84	17.8	267	16.3
Often	3.0	70	18.5	161	20.3	104	22.1	335	20.4
Daily	2.8	249	66.2	509	63.9	283	60.1	1041	63.3
Watch Science on TV									
Hardly ever	2.9	131	35.0	217	27.2	142	30.3	490	29.9
Once in a while	2.9	145	38.9	300	37.6	189	40.3	634	38.7
Frequently	2.9	97	26.1	281	35.2	138	29.4	517	31.5
Read Science Magazines									
Infrequently	3.1	127	42.1	339	52.4	214	57.8	680	51.6
Frequently	2.6	175	57.9	308	47.6	156	42.2	639	48.4

Table 16

Measures of Television Viewing by Types of Programs Viewed

		Television Viewing: Light		Medium		Heavy		Total	
	Hrs./Day	N	%	N	%	N	%	N	%
Overall	2.9	376	(22.8)	797	(48.5)	420	(28.7)	1643	100.0
Daytime Serials									
Hardly ever	2.4	332	88.8	582	73.1	243	51.6	1159	70.5
Once in a while	3.0	30	8.0	135	16.9	71	15.0	236	14.3
Frequently	4.8	12	3.2	79	10.0	157	33.4	248	15.1
PBS									
Hardly ever	2.8	148	39.5	250	31.6	145	30.9	543	33.2
Once in a while	2.8	131	34.9	330	41.6	186	39.8	2647	39.6
Frequently	3.1	96	25.6	213	26.8	138	29.4	446	27.3
Religious TV									
Hardly ever	2.7	261	69.5	493	62.1	251	53.3	1007	61.3
Once in a while	3.1	87	23.3	210	26.3	143	30.3	440	26.8
Frequently	3.4	27	7.2	92	11.6	77	16.3	196	11.9
TV News									
Hardly ever	2.5	56	15.0	44	5.6	31	6.7	132	8.0
Once in a while	2.5	82	21.9	136	17.1	60	12.8	279	17.0
Frequently	3.0	37	63.1	616	77.3	379	80.6	1232	75.0
Cable									
Does not have	2.8	233	61.9	499	62.6	245	52.0	976	59.4
Has	3.0	143	38.1	298	37.4	226	48.0	667	40.6

Table 17

Science Reading and TV Viewing Combined

	"Seekers" High Read/Low TV		High Read/High TV		Low Read/Low TV		"Absorbers" Low Read/High TV		Total	
	N	%	N	%	N	%	N	%	N	%
Overall	344	100.0	295	100.0	309	100.0	317	100.0	1319	100.0
Sex										
Male	205	59.7	153	51.7	144	46.5	142	38.3	644	48.8
Female	138	40.3	143	48.3	165	53.5	29	61.7	675	51.2
Age										
18 - 34	149	43.5	152	51.5	97	31.6	142	38.4	539	41.1
35 - 54	119	34.8	78	26.5	108	35.4	86	23.4	392	29.9
55 and over	74	21.7	65	21.9	100	32.9	141	38.2	380	29.0
Education										
High School or less	150	43.5	185	62.7	195	63.0	286	77.3	815	61.9
Some College	194	56.6	110	37.3	114	37.0	84	22.7	503	38.1
Race										
White	314	92.3	238	82.3	271	87.9	280	75.9	1104	84.4
Non-white	26	7.7	51	17.7	37	12.1	89	24.1	204	15.6
Household Income										
Under $15,000	63	18.9	79	27.8	74	25.1	135	38.2	351	27.7
$15,000 - $24,999	69	20.6	77	27.1	69	23.4	93	26.5	308	24.4
$25,000 - $35,000	80	24.0	61	21.4	63	21.7	77	21.8	281	22.3
Over $35,000	122	36.5	68	23.7	88	29.8	48	13.6	325	25.7
Newspaper Reading										
Rarely/never	39	11.4	34	11.7	24	10.9	55	14.7	162	12.3
Often	66	19.2	70	23.8	58	18.7	70	19.0	263	20.0
Daily	238	69.4	191	64.6	218	70.4	246	66.3	893	67.7
Watch Science on TV										
Hardly ever	60	17.6	31	10.3	106	34.2	128	34.5	324	24.6
Once in a while	114	33.1	127	42.8	137	44.5	145	39.2	523	39.7
Frequently	169	49.3	138	46.8	66	21.4	98	26.3	471	35.7

Table 18

Number and Percent of Repondents Who
Have A High Score On An Index Measuring A Positive Image of Science

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	810	50	205	36	409	52	196	43	-13	-.163***	1617
Sex											
Male	416	54	125	61	217	55	74	43	-18	-.211***	773
Female	394	47	80	49	192	49	122	42	- 7	-.094	844
Age											
18-34	350	56	67	56	180	58	103	52	- 4	-.069	629
35-54	269	55	84	64	137	55	49	47	-17	-.201**	486
55 and older	184	38	52	45	91	40	42	38	- 7	-.240**	490
Education											
No College	450	42	89	44	214	43	148	40	- 4	-.047	1064
Some College	358	65	116	70	194	68	48	50	-20	-.209**	549
Race											
White	726	254	193	60	373	55	160	47	-13	-.146**	1341
Non-white	76	29	10	26	32	31	34	28	+ 2	.004	262
Income											
Under $25,000	346	41	63	41	177	44	106	38	- 3	-.062	842
Over $25,000	433	64	133	68	216	64	84	57	-11	-.128	682
Newspaper Reading											
Rarely or Never	102	40	22	41	50	41	30	38	- 3	-.031	255
Occasionally	154	46	32	46	81	51	41	40	- 6	-.097	332
Daily	553	54	191	61	278	55	125	45	-16	-.201***	1030
Watch Science TV											
Hardly Ever	177	37	51	41	83	39	43	32	- 9	-.124	474
Once in a While	322	51	87	60	153	52	81	44	-16	-.196**	625
Frequently	311	60	67	69	173	62	71	52	-17	-.219**	515
Read Science Magazines											
Rarely	328	49	66	51	168	50	93	44	- 7	-.099	673
Frequently	385	61	113	65	198	65	74	48	-17	-.212**	635
Interest in Religion											
Low	382	56	98	63	191	59	94	46	-17	-.214***	679
High	337	42	83	47	173	44	80	36	-11	-.147*	799

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 19

Number and Percent of Respondents Who
Have a High Score on an Index Measuring a Positive Image of Scientists

	Television Viewing								CD	Gamma	Total N
	Total		Light		Medium		Heavy		(%Heavy-		
	N	%	N	%	N	%	N	%	%Light)		
Overall	723	50	186	37	348	50	189	45	-12	-.143**	1442
Sex											
Male	365	52	110	60	182	52	74	46	-14	-.167**	678
Female	358	48	77	54	166	48	115	45	- 9	-.107	744
Age											
18-34	350	60	70	65	179	64	101	53	-12	-.169*	380
35-54	242	55	83	70	116	51	43	45	-25	-.306***	442
55 and older	125	31	31	32	51	28	43	33	+ 1	.030	410
Education											
No College	399	43	78	45	185	43	136	41	- 4	-.048	934
Some College	324	64	108	70	162	62	53	60	-10	-.153	505
Race											
White	632	53	173	60	305	51	154	49	-11	-.131**	1196
Non-White	84	36	12	32	38	41	34	33	+ 1	-.054	234
Income											
under $25,000	312	42	64	46	154	45	94	37	- 9	-.130*	735
Over $25,000	390	62	118	66	185	59	87	62	- 4	-.064	633
Newspaper Reading											
Rarely or Never	94	43	19	44	49	47	26	36	- 8	-.123	221
Occasionally	162	53	37	61	82	56	43	45	-16	-.202*	305
Daily	467	51	130	59	217	49	120	48	-11	-.127**	917
Watch Science TV											
Hardly Ever	167	41	48	44	69	39	50	41	- 3	-.037	410
Once in a While	286	51	79	61	136	51	72	44	-17	-.212**	562
Frequently	269	57	59	67	143	57	67	51	-16	-.181*	470
Read Science Magazines											
Rarely	267	45	59	54	124	42	83	44	-10	-.097	593
Frequently	364	61	108	66	177	64	79	53	-13	-.160*	592
Interest in Religion											
Low	349	56	96	67	165	57	88	45	-22	-.278***	629
High	297	43	70	47	140	41	87	45	- 2	-.015	687

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 20

Number and Percent of Respondents Who
Have a High Score on an Index Measuring a Positive Image of Technology

	Television Viewing								CD		
	Total		Light		Medium		Heavy		(%Heavy-	Gamma	Total N
	N	%	N	%	N	%	N	%	%Light)		
Overall	803	50	216	59	403	52	184	41	-18	-.218***	1603
Sex											
Male	464	64	145	69	237	61	82	47	-22	-.272***	775
Female	339	41	72	45	166	42	103	37	- 8	-.104	828
Age											
18-34	370	58	83	69	185	59	103	51	-18	-.220**	634
35-54	256	52	87	65	136	54	33	31	-34	-.382***	489
55 and older	176	38	47	42	80	38	49	34	- 8	-.096	469
Education											
No College	444	42	94	47	217	44	133	37	-10	-.126*	1052
Some College	358	65	122	73	185	64	51	54	-19	-.244**	348
Race											
White	679	51	185	57	359	54	135	40	-17	-.196***	1329
Non-white	118	46	28	70	42	40	48	42	-28	-.224*	260
Income											
Under $25,000	336	40	70	45	164	42	102	37	- 8	-.105	831
Over $25,000	432	63	139	71	217	64	276	52	-19	-.239***	683
Newspaper Reading											
Rarely or Never	118	46	33	62	54	44	31	38	-24	-.266**	256
Occasionally	174	53	39	57	94	59	41	41	-16	-.220*	329
Daily	511	50	144	58	254	51	113	41	-17	-.206***	1018
Watch Science TV											
Hardly Ever	169	36	57	46	76	36	36	27	-19	-.243**	465
Once in a While	324	52	96	66	142	49	85	46	-20	-.226***	622
Frequently	310	60	63	65	184	66	63	46	-19	-.257***	514
Read Science Magazines											
Rarely	289	44	60	48	152	46	77	38	-10	-.128	662
Frequently	414	65	125	72	201	66	89	57	-15	-.199**	633
Interest in Religion											
Low	387	57	99	64	193	60	96	47	-17	-.219***	677
High	336	42	90	51	171	43	75	34	-17	-.202***	789

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 21

Number and Percent of Respondents Who
Have a High Score on an Index Measuring the Restraint of Science

	Television Viewing								CD		
	Total		Light		Medium		Heavy		(%Heavy-	Gamma	Total N
	N	%	N	%	N	%	N	%	%Light)		
Overall	768	48	155	42	362	46	251	55	+13	.152**	1603
Sex											
Male	306	40	70	34	153	39	84	48	+14	.170**	768
Female	462	55	85	53	210	54	167	59	+ 6	.079	835
Age											
18-34	260	42	40	34	126	41	94	47	+13	.157**	624
35-54	219	45	51	38	112	46	57	53	+15	.177*	483
55 and older	283	58	62	55	122	55	99	66	+11	.147	486
Education											
No College	569	54	109	34	254	51	206	56	+ 2	.045	1062
Some College	198	37	46	28	107	38	45	48	+20	.253***	538
Race											
White	619	46	130	40	306	46	184	54	+14	.168***	1332
Non-White	145	56	26	65	55	54	64	55	-10	-.067	258
Income											
Under $25,000	454	54	82	53	207	52	165	58	+ 5	.088	834
Over $25,000	263	39	65	34	129	39	69	47	+13	.167*	676
Newspaper Reading											
Rarely or Never	131	51	22	41	66	53	44	55	+14	.152	238
Occasionally	164	50	32	46	76	50	56	55	+ 9	.116	325
Daily	473	46	102	42	221	44	157	54	+12	.157**	1021
Watch Science TV											
Hardly Ever	272	38	69	35	123	39	80	38	+ 3	.029	473
Once in a While	308	50	58	41	142	48	108	58	+17	.123**	621
Frequently	188	37	28	29	97	35	64	47	+18	.228**	507
Read Science Magazines											
Rarely	348	52	65	52	161	49	122	58	+ 6	.100	664
Frequently	239	38	53	31	111	37	75	48	+17	.220**	630
Interest in Religion											
Low	297	44	63	41	129	40	105	51	+10	.138*	680
High	433	55	87	49	214	55	132	60	+11	.126*	790

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 22

Number and Percent of Respondents Who
Have a High Score on an Index Measuring Interest in Science

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	819	50	181	49	419	53	219	47	- 2	-.034	1639
Sex											
Male	419	54	109	52	225	57	84	47	- 5	-.052	780
Female	400	47	72	44	194	48	135	46	+ 2	.014	859
Age											
18-34	316	50	60	50	157	50	99	49	- 1	-.019	636
35-54	262	54	75	56	137	54	51	48	- 8	-.101	490
55 and older	234	46	44	38	122	54	68	43	+ 5	.040	502
Education											
No College	492	45	81	39	248	49	163	44	+ 5	.019	1083
Some College	327	59	101	60	171	59	55	58	- 2	-.030	552
Race											
White	684	50	159	49	357	52	167	48	- 1	-.007	1360
Non-white	124	47	20	50	54	52	50	42	- 8	-.140	265
Income											
Under $25,000	409	48	70	44	203	50	136	47	+ 3	.015	853
Over $25,000	373	54	106	53	193	57	74	50	- 3	-.032	686
Newspaper Reading											
Rarely or Never	121	46	21	40	65	52	35	41	+ 1	-.015	264
Occasionally	161	48	33	47	76	47	53	51	+ 4	.035	335
Daily	537	52	127	51	278	55	131	47	- 4	-.061	1040
Watch Science TV											
Hardly Ever	167	34	40	32	78	36	48	34	+ 2	.031	487
Once in a While	303	48	73	50	150	50	80	42	- 8	-.102	633
Frequently	347	67	66	68	191	68	90	65	- 3	-.036	517
Read Science Magazines											
Rarely	310	46	47	37	165	49	98	46	+ 9	.074	680
Frequently	405	64	114	66	196	64	95	61	- 5	-.059	638
Interest in Religion											
Low	349	51	83	53	177	55	89	43	-10	-.140*	687
High	393	48	78	43	202	50	112	49	+ 6	.038	814

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 23

Number and Percent of Respondents Who
Have a High Score on an Index Measuring Being Well Informed About Science

	Television Viewing: Total N	Total %	Light N	Light %	Medium N	Medium %	Heavy N	Heavy %	CD (%Heavy-%Light)	Gamma	Total N
Overall	558	34	146	39	261	33	151	32	- 7	-.087*	1638
Sex											
Male	315	40	95	45	154	39	66	37	- 8	-.102	780
Female	243	28	51	31	108	27	84	29	- 2	-.013	858
Age											
18-34	213	34	48	40	96	31	69	34	- 6	-.056	636
35-54	165	34	55	41	82	32	29	27	-14	-.195*	490
55 and older	175	35	41	35	80	35	53	34	- 1	-.014	501
Education											
No College	324	30	65	32	143	28	117	31	- 1	.012	1082
Some College	232	42	81	48	117	40	34	36	-12	-.158*	552
Race											
White	468	34	132	40	221	32	115	33	- 7	-.091	1359
Non-white	83	31	13	31	35	34	35	30	- 1	-.052	265
Income											
Under $25,000	278	33	60	38	129	32	90	31	- 7	-.074	852
Over $25,000	253	37	79	40	121	36	53	36	- 4	-.062	686
Newspaper Reading											
Rarely or Never	73	28	16	29	31	25	26	32	+ 3	.067	264
Occasionally	101	30	20	29	51	31	30	29	0	-.005	335
Daily	384	37	110	44	180	35	94	34	-10	-.134*	1039
Watch Science TV											
Hardly Ever	117	24	37	29	54	25	26	19	-10	-.170*	486
Once in a While	208	33	58	40	89	30	61	32	- 8	-.086	633
Frequently	231	45	49	50	118	42	63	46	- 4	-.037	517
Read Science Magazines											
Rarely	206	30	43	34	100	30	63	29	- 5	-.059	680
Frequently	276	43	83	48	128	42	65	42	- 6	-.075	638
Interest in Religion											
Low	227	33	60	39	106	33	60	29	-10	-.133*	687
High	271	33	66	36	129	32	76	33	- 3	-.040	813

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 24

Number and Percent of Respondents Who
Have a High Score on an Index Measuring Interest in Science or
Have a High Score on an Index Measuring Being Well Informed About Science
Controlled for High or Low Scores on the Other Index

	Television Viewing								CD		
	Total		Light		Medium		Heavy		(%Heavy-	Gamma	Total N
	N	%	N	%	N	%	N	%	%Light)		
Interest in Science Index Controlled for Well Informed About Science Index											
Low Info	414	38	72	32	226	42	115	36	+ 4	+.034	1080
High Info	405	72	109	75	193	74	102	68	- 7	-.108	558
Well Informed About Science Index Controlled for Interest in Science Index											
Low Interest	154	19	36	19	69	18	48	19	0	+.008	819
High Interest	405	49	109	60	193	46	102	47	-13	-.145*	818

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 25

Number and Percent of Respondents Who
Disagree That Scientists Are Odd and Peculiar People

	Television Viewing								CD	Gamma	Total N
	Total		Light		Medium		Heavy		(%Heavy-		
	N	%	N	%	N	%	N	%	%Light)		
Overall	1052	67	261	73	513	67	278	62	-11	-.151***	1573
Sex											
Male	510	68	148	74	261	69	101	59	-15	-.196**	751
Female	543	66	113	72	253	65	177	64	- 8	-.102	822
Age											
18-34	434	70	87	73	216	72	131	66	- 7	-.111	618
35-54	330	70	98	77	168	70	63	61	-16	-.222**	473
55 and older	281	59	73	67	125	58	83	56	-11	-.132	473
Education											
No College	646	62	131	66	298	62	217	60	- 6	-.071	1033
Some College	406	76	130	81	215	76	61	66	-15	-.209*	537
Race											
White	924	71	235	75	453	69	235	70	- 5	-.062	1305
Non-white	119	47	22	55	55	55	42	37	-18	-.279**	254
Income											
Under $25,000	508	62	101	66	249	65	158	57	- 9	-.120	813
Over $25,000	501	75	151	79	246	73	104	71	- 8	-.133	671
Newspaper Reading											
Rarely or Never	147	60	33	64	74	63	41	53	-11	-.157	244
Occasionally	223	70	50	76	106	68	67	68	- 8	-.087	320
Daily	682	68	178	74	334	68	170	62	-12	-.167**	1009
Watch Science TV											
Hardly Ever	267	58	81	68	116	57	70	51	-17	-.212**	460
Once in a While	412	68	106	76	192	68	114	63	-13	-.175*	606
Frequently	373	74	73	76	205	74	95	71	- 5	-.071	505
Read Science Magazines											
Rarely	416	64	89	73	206	64	121	60	-13	-.161*	646
Frequently	466	74	131	76	226	75	109	70	- 6	-.096	628
Interest in Religion											
Low	462	69	109	73	225	72	127	63	-10	-.148*	667
High	483	63	123	72	235	62	125	58	-14	-.174**	770

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 26

Number and Percent of Respondents Who Disagree That A Scientist's Work Is Dangerous

	Total		Television Viewing: Light		Medium		Heavy		CD (%Heavy-%Light)	Gamma	Total N
	N	%	N	%	N	%	N	%			
Overall	644	41	182	51	318	42	143	32	-19	-.244***	1572
Sex											
Male	333	44	111	55	170	45	52	30	-25	-.298***	752
Female	311	38	72	46	148	39	91	32	-14	-.170**	820
Age											
18-34	255	41	63	55	130	43	61	31	-24	-.288***	620
35-54	212	45	77	59	102	42	34	32	-27	-.324***	476
55 and older	173	37	41	38	84	40	48	33	- 5	-.083	467
Education											
No College	324	31	70	36	153	32	101	28	- 8	-.107	1040
Some College+	318	60	113	70	163	59	42	45	-25	-.290***	528
Race											
White	574	44	170	54	282	43	122	36	-18	-.216***	1301
Non-white	63	24	11	26	33	32	20	17	- 9	-.249*	259
Income											
Under $25,000	269	33	56	37	136	35	77	28	- 9	-.139*	820
Over $25,000	345	52	124	65	165	50	55	39	-26	-.319***	662
Newspaper Reading											
Rarely or Never	74	29	18	36	35	29	21	25	-11	-.149	253
Occasionally	124	39	30	45	64	42	31	31	-14	-.184	319
Daily	445	44	134	56	219	45	92	34	-22	-.273***	1000
Watch Science TV											
Hardly Ever	131	28	44	37	39	29	28	21	-16	-.239**	460
Once in a While	257	43	80	57	118	41	60	33	-24	-.287***	605
Frequently	255	51	59	62	141	52	55	40	-22	-.257***	504
Read Science Magazines											
Rarely	255	39	63	53	129	40	63	31	-22	-.265***	649
Frequently	322	52	103	60	152	51	67	44	-16	-.199**	620
Interest in Religion											
Low	282	42	80	53	141	44	61	30	-23	-.280***	670
High	286	37	79	46	141	37	66	30	-16	-.207***	767

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 27

Number and Percent of Respondents Who
Disagree That Scientists Have Few Interests But Work

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	699	46	182	32	350	48	167	38	-14	-.178***	1521
Sex											
Male	364	49	109	36	192	51	64	38	-18	-.202**	737
Female	335	43	73	49	159	44	103	38	-11	-.129*	783
Age											
18-34	344	57	78	67	174	59	92	49	-18	-.228***	600
35-54	222	48	70	36	115	49	37	36	-20	-.224**	461
55 and older	129	29	32	32	60	30	37	25	- 7	-.100	449
Education											
No College	383	38	80	43	184	40	120	35	- 8	-.106	1001
Some College	313	61	101	64	165	62	47	51	-13	-.142	517
Race											
White	612	49	160	53	311	49	142	44	- 9	-.110*	1256
Non-white	80	32	20	50	35	36	25	22	-28	-.370***	251
Income											
Under $25,000	307	39	59	40	155	42	93	35	- 5	-.078	780
Over $25,000	370	56	120	64	186	58	64	44	-20	-.235***	657
Newspaper Reading											
Rarely or Never	97	40	23	45	44	39	30	40	- 5	-.060	240
Occasionally	151	49	32	50	80	54	39	40	-10	-.147	309
Daily	450	46	127	55	225	48	98	37	-18	-.216***	971
Watch Science TV											
Hardly Ever	158	36	44	38	69	36	44	32	- 6	-.082	442
Once in a While	281	48	79	59	135	48	67	39	-20	-.241***	589
Frequently	259	53	57	61	146	56	56	43	-18	-.216**	487
Read Science Magazines											
Rarely	257	41	59	49	126	40	72	37	-12	-.138*	633
Frequently	345	57	100	60	179	63	66	44	-16	-.187**	603
Interest in Religion											
Low	321	49	86	57	160	52	76	38	-19	-.236***	652
High	294	40	72	44	146	40	76	36	- 8	-.099	738

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 28

Number and Percent of Respondents Who
Disagree That Scientists Spend Little Time With Their Family

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	616	43	157	48	315	45	144	34	-14	-.173***	1443
Sex											
Male	312	46	92	51	166	48	53	35	-16	-.192**	684
Female	304	40	65	44	149	43	90	34	-10	-.138*	759
Age											
18-34	279	48	57	53	146	52	76	40	-13	-.178*	576
35-54	214	49	71	59	110	50	33	36	-23	-.267***	433
55 and older	118	28	26	27	58	30	34	25	- 2	-.043	425
Education											
No College	345	36	65	36	177	40	104	31	- 5	-.107	949
Some College	270	55	92	61	138	54	40	48	-13	-.162*	491
Race											
White	539	45	144	51	281	47	113	37	-14	-.173***	1190
Non-white	67	28	9	23	29	30	29	27	+ 4	.031	242
Income											
Under $25,000	277	37	58	41	149	43	70	27	-14	-.223***	748
Over $25,000	312	51	95	54	158	52	60	44	-10	-.105	617
Newspaper Reading											
Rarely or Never	91	40	18	36	47	44	26	37	+ 1	-.008	226
Occasionally	136	44	37	56	73	50	26	28	-28	-.362***	308
Daily	389	43	102	48	195	44	92	36	-12	-.149**	909
Watch Science TV											
Hardly Ever	148	35	41	37	69	37	38	29	- 8	-.120	428
Once in a While	253	45	66	50	124	47	63	39	-11	-.133	556
Frequently	214	47	49	58	122	50	43	34	-24	-.292***	458
Read Science Magazines											
Rarely	220	37	47	43	112	38	61	32	-11	-.149*	399
Frequently	304	53	92	57	156	58	57	39	-18	-.215**	576
Interest in Religion											
Low	264	42	68	48	140	48	56	30	-18	-.251***	620
High	280	40	71	45	135	39	75	37	- 8	-.097	704

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 29

Number and Percent of Respondents Who
Respond That Science Jobs Rate Better Than Most

	Television Viewing								CD	Gamma	Total N
	Total		Light		Medium		Heavy		(%Heavy-		
	N	%	N	%	N	%	N	%	%Light)		
Overall	649	41	171	48	307	40	170	38	-10	.114**	1580
Sex											
Male	351	46	102	51	170	44	79	45	- 6	.089	757
Female	298	36	68	44	138	35	92	33	-11	.098	822
Age											
18-34	261	42	68	57	118	38	75	38	-19	.180**	624
35-54	205	43	60	46	105	43	40	40	- 6	.101	474
55 and older	182	38	43	40	84	39	55	37	- 3	.036	471
Education											
No College	386	37	78	41	176	36	133	37	- 4	.039	1034
Some College	260	48	93	57	129	45	38	41	-16	.177**	541
Race											
White	538	41	150	48	261	39	126	38	-10	.106*	1306
Non-white	102	39	19	46	40	39	43	37	- 9	.093	261
Income											
Under $25,000	315	39	65	44	148	38	101	37	- 7	.050	816
Over $25,000	293	43	101	52	137	41	55	38	-14	.187**	677
Newspaper Reading											
Rarely or Never	111	44	23	45	56	46	32	40	- 5	.055	251
Occasionally	126	39	31	44	57	37	38	38	- 6	.015	326
Daily	412	41	118	50	194	39	100	37	-13	.161***	1003
Watch Science TV											
Hardly Ever	153	33	46	40	63	30	43	32	- 8	.053	458
Once in a While	249	40	71	50	116	39	63	34	-16	.176**	618
Frequently	246	49	54	56	128	47	64	48	- 8	.110	502
Read Science Magazines											
Rarely	243	37	49	40	123	37	70	34	- 6	.110	659
Frequently	299	48	94	55	141	47	63	42	-13	.123*	626
Interest in Religion											
Low	273	41	77	50	129	41	68	34	-16	.225***	667
High	307	40	73	43	148	38	87	39	- 4	.011	778

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 30

Number and Percent of Respondents Who Agree that Astrology is Not Scientific

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	872	56	235	65	435	57	202	45	-20	-.216***	1571
Sex											
Male	470	62	145	71	245	65	79	47	-24	-.261***	753
Female	402	49	90	57	189	50	123	44	-13	-.135*	818
Age											
18-34	317	51	67	57	160	52	90	45	-12	-.144*	625
35-54	258	54	86	65	130	55	42	41	-24	-.271***	474
55 and older	288	62	81	72	138	65	69	49	-23	-.253***	463
Education											
No College	508	49	113	57	244	51	152	43	-14	-.146**	1031
Some College	361	67	122	74	188	67	50	54	-20	-.233**	538
Race											
White	762	58	215	67	388	59	159	48	-19	-.200***	1310
Non-white	101	41	18	48	40	42	43	37	-11	-.111	249
Income											
Under $25,000	407	50	86	57	199	52	122	44	-13	-.125*	806
Over $25,000	417	62	139	70	213	64	65	45	-25	-.284***	678
Newspaper Reading											
Rarely or Never	130	53	36	70	56	47	38	50	-20	-.215 *	243
Occasionally	173	53	41	60	90	57	42	42	-18	-.164	325
Daily	569	57	158	65	289	60	122	45	-20	-.228***	1001
Watch Science TV											
Hardly Ever	240	52	74	60	109	53	57	43	-17	-.177**	462
Once in a While	328	54	95	66	153	54	80	45	-21	-.244***	606
Frequently	303	60	65	68	173	63	65	49	-19	-.226**	503
Read Science Magazines											
Rarely	371	57	72	57	192	60	108	52	- 5	-.074	634
Frequently	356	57	120	69	175	58	61	39	-30	-.318***	630
Interest in Religion											
Low	357	54	94	62	166	54	96	48	-14	-.179**	664
High	415	54	112	64	221	57	82	39	-25	-.255***	773

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 31

Number and Percent of Respondents Who Reply That They Do Not Read Horoscopes

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	744	45	210	36	353	44	181	39	-17	-.190***	1640
Sex											
Male	419	54	128	61	209	53	82	46	-15	-.185***	780
Female	326	38	83	50	144	36	99	34	-16	-.145**	860
Age											
18-34	281	44	55	46	136	50	70	34	-12	-.171**	637
35-54	213	43	78	58	94	37	41	39	-19	-.212***	490
55 and older	247	49	75	64	101	45	70	45	-19	-.202***	502
Education											
No College	473	44	113	55	219	43	142	38	-17	-.181***	1084
Some College	267	48	97	38	130	45	40	41	-17	-.166**	552
Race											
White	633	46	188	37	313	46	132	38	-19	-.194***	1361
Non-white	105	40	22	34	35	33	48	40	-14	-.104	265
Income											
Under $25,000	356	42	81	51	169	42	106	37	-14	-.164***	834
Over $25,000	334	49	118	60	157	46	59	40	-20	-.208***	687
Newspaper Reading											
Rarely or Never	155	58	38	70	73	58	44	52	-18	-.227*	265
Occasionally	152	45	41	59	71	44	39	38	-21	-.209**	335
Daily	438	42	131	53	208	41	99	35	-18	-.202***	1041
Watch Science TV											
Hardly Ever	245	50	75	58	103	48	67	47	-11	-.127*	487
Once in a While	280	44	81	56	130	43	69	37	-19	-.195***	634
Frequently	218	42	53	34	120	43	45	32	-22	-.248***	517
Read Science Magazines											
Rarely	279	41	64	51	133	39	81	38	-13	-.133**	680
Frequently	293	46	98	56	137	44	57	36	-20	-.221***	639
Interest in Religion											
Low	276	40	79	51	125	39	71	34	-17	-.195***	687
High	392	48	111	61	187	46	94	41	-20	-.207***	814

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 32

Number and Percent of Respondents Who Tend to Choose Science Over Religion

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	882	55	218	59	427	55	236	51	- 8	.096*	1605
Sex											
Male	471	62	134	65	229	59	108	62	- 3	.046	765
Female	410	49	84	52	198	51	128	45	- 7	.094	840
Age											
18-34	409	66	79	66	193	63	137	69	+ 3	-.056	624
35-54	274	57	87	66	141	57	46	45	-21	.252**	481
55 and older	193	40	52	46	90	40	52	34	-12	.152*	489
Education											
No College	510	48	97	48	234	48	179	49	+ 1	-.015	1060
Some College	371	68	121	74	192	68	57	62	-12	.162*	542
Race											
White	760	57	199	62	384	58	176	52	-10	-.122**	1329
Non-white	112	42	17	41	37	36	58	49	+ 8	-.166	263
Income											
Under $25,000	405	48	76	49	194	49	135	48	- 1	.017	836
Over $25,000	442	65	139	71	214	64	89	61	-10	.144*	678
Newspaper Reading											
Rarely or Never	121	46	26	48	52	42	43	52	+ 4	-.073	261
Occasionally	187	57	40	58	86	54	61	61	+ 3	-.056	329
Daily	573	56	152	62	290	58	132	48	-14	.182***	1015
Watch Science TV											
Hardly Ever	194	40	59	46	82	38	53	39	- 7	.094	478
Once in a While	347	56	90	64	158	55	99	53	-11	.124	617
Frequently	341	67	68	71	188	68	85	62	- 9	.115	509
Read Science Magazines											
Rarely	339	50	68	54	168	50	103	48	- 6	.064	673
Frequently	426	68	119	69	203	68	104	67	- 2	.025	625
Interest in Religion											
Low	464	69	119	77	217	69	128	62	-15	.204**	674
High	306	39	71	40	152	39	84	38	- 2	.033	794

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 33

Number and Percent of Respondents Who Respond That Alcohol Is Major Health Problem

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	1312	80	304	82	623	78	385	82	0	-.014	1635
Sex											
Male	593	76	161	77	293	75	138	78	+ 1	.005	776
Female	719	84	143	87	330	82	247	85	- 2	.019	859
Age											
18-34	508	80	97	81	244	78	167	82	+ 1	-.023	636
35-54	407	83	109	82	208	83	91	85	+ 3	-.065	490
55 and older	386	78	96	81	165	73	126	81	0	-.015	498
Education											
No College	873	81	177	86	392	78	304	82	- 4	.042	1081
Some College	435	79	127	76	227	79	80	84	+ 8	-.120	550
Race											
White	1071	79	267	81	527	77	277	80	- 1	.031	1356
Non-white	232	88	36	88	91	87	105	88	0	-.039	265
Income											
Under $25,000	717	84	137	86	342	84	239	83	- 3	.075	853
Over $25,000	524	77	152	77	250	74	122	82	+ 5	-.053	683
Newspaper Reading											
Rarely or Never	208	79	43	78	96	76	69	83	+ 5	-.085	265
Occasionally	266	80	59	85	127	79	80	77	- 8	.139	334
Daily	838	81	202	82	400	79	236	84	+ 2	-.048	1036
Watch Science TV											
Hardly Ever	399	82	109	85	170	79	119	84	- 1	.009	485
Once in a While	506	80	117	81	231	77	158	83	+ 2	-.057	633
Frequently	405	79	75	78	222	79	108	78	0	.009	515
Read Science Magazines											
Rarely	546	81	108	85	267	79	171	80	- 5	.075	678
Frequently	512	80	138	79	243	79	131	84	+ 5	-.086	636
Interest in Religion											
Low	526	77	117	75	242	75	168	81	+ 6	-.095	687
High	675	83	161	89	325	81	189	83	- 6	.117	810

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 34

Number and Percent of Respondents Who
Reply That They Usually Wear Seatbelts In A Car

	Television Viewing								CD (%Heavy-%Light)	Gamma	Total N
	Total		Light		Medium		Heavy				
	N	%	N	%	N	%	N	%			
Overall	339	40	98	49	170	41	70	31	-18	.226***	837
Sex											
Male	164	40	57	51	75	37	32	35	-16	.207*	407
Female	174	40	41	47	95	45	38	29	-18	.254**	430
Age											
18-34	131	40	29	46	73	44	29	30	-16	.228*	327
35-54	102	41	34	48	54	42	14	28	-20	.229*	251
55 and older	102	40	33	52	42	37	27	35	-17	.195	254
Education											
No College	196	34	45	40	94	34	57	30	-10	.128	578
Some College	142	55	53	61	76	56	13	36	-25	.241*	258
Race											
White	287	42	85	49	145	42	57	34	-15	.179**	687
Non-white	48	34	12	52	23	38	13	23	-29	.389**	142
Income											
Under $25,000	155	35	37	39	78	36	40	30	- 9	.126	443
Over $25,000	167	49	56	59	86	51	26	34	-25	.277**	339
Newspaper Reading											
Rarely or Never	40	31	9	34	20	32	11	27	- 7	.102	130
Occasionally	62	38	15	42	36	49	11	21	-21	.308*	162
Daily	237	43	74	54	114	42	48	36	-18	.219**	545
Watch Science TV											
Hardly Ever	74	29	24	34	33	27	18	26	- 8	.121	259
Once in a While	132	44	48	63	59	41	25	30	-33	.387***	301
Frequently	131	48	24	48	79	53	28	37	-11	.169	274
Read Science Magazines											
Rarely	131	36	30	44	69	38	31	28	-16	.219*	364
Frequently	171	55	56	61	82	55	32	46	-15	.180	312
Interest in Religion											
Low	147	40	43	49	64	37	40	37	-12	.139	372
High	161	41	47	49	88	45	26	26	-23	.296***	393

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 35

Number and Percent of Respondents Who
Disagree That Science Makes Life Change Too Fast

	Television Viewing										
	Total		Light		Medium		Heavy		CD (%Heavy-%Light)	Gamma	Total N
	N	%	N	%	N	%	N	%			
Overall	851	53	222	61	430	55	200	44	-17	-.214***	1606
Sex											
Male	424	55	136	68	221	57	66	38	-30	-.342***	765
Female	428	51	86	53	208	53	133	47	- 6	-.086	840
Age											
18-34	355	57	76	65	184	59	95	48	-17	-.214**	626
35-54	272	56	80	61	143	57	49	46	-15	-.179*	487
55 and older	219	46	63	57	100	46	56	37	-20	-.234**	481
Education											
No College	485	46	100	50	235	47	150	41	- 9	-.118*	1058
Some College	364	67	122	74	193	67	50	53	-21	-.259***	544
Race											
White	752	57	208	65	382	57	162	48	-17	-.200***	1330
Non-white	89	34	12	30	42	40	35	30	0	-.090	262
Income											
Under $25,000	375	45	77	51	183	46	114	40	-11	-.135*	831
Over $25,000	426	63	134	68	220	65	73	50	-18	-.214**	680
Newspaper Reading											
Rarely or Never	128	50	29	55	58	48	41	52	- 3	-.014	254
Occasionally	175	53	40	58	97	60	39	38	-20	-.263**	331
Daily	549	54	154	64	275	55	120	43	-21	-.246***	1020
Watch Science TV											
Hardly Ever	205	44	66	54	94	45	45	33	-21	-.258***	469
Once in a While	333	54	84	60	168	57	81	44	-16	-.204**	623
Frequently	313	61	72	74	168	60	74	54	-20	-.228**	512
Read Science Magazines											
Rarely	350	52	76	60	181	54	93	45	-15	-.185**	668
Frequently	387	62	116	69	196	64	75	49	-20	-.253***	629
Interest in Religion											
Low	386	57	108	71	193	60	85	43	-28	-.350***	673
High	376	47	88	50	193	49	96	42	- 8	-.099	794

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 36

Number and Percent of Respondents Who
Disagree That Science Causes More Problems Than Solutions

	Television Viewing								CD		
	Total		Light		Medium		Heavy		(%Heavy-	Gamma	Total N
	N	%	N	%	N	%	N	%	%Light)		
Overall	1158	74	284	79	572	75	303	68	-11	-.173***	1573
Sex											
Male	565	75	163	80	287	75	114	67	-13	-.201**	756
Female	594	73	121	76	285	75	189	68	- 8	-.145*	817
Age											
18-34	485	79	98	84	246	81	141	72	-12	-.221**	614
35-54	370	78	108	83	189	79	73	71	-12	-.207*	474
55 and older	292	62	75	67	131	61	86	58	- 9	-.112	474
Education											
No College	697	68	138	70	333	70	226	64	- 6	-.100	1029
Some College	460	85	146	89	237	84	77	83	- 6	-.172	540
Race											
White	1003	77	264	83	507	77	232	71	-12	-.204***	1307
Non-white	147	58	18	45	60	63	69	59	+14	.093	252
Income											
Under $25,000	545	67	110	72	263	68	172	62	-10	-.147*	816
Over $25,000	558	83	165	84	279	84	114	79	- 5	-.097	672
Newspaper Reading											
Rarely or Never	158	64	31	62	81	68	46	59	- 3	-.063	247
Often	243	75	54	79	123	79	66	67	-12	-.209	322
Daily	758	76	199	82	368	75	191	70	-12	-.190**	1004
Watch Science TV											
Hardly Ever	280	61	83	68	130	63	67	51	-17	-.233**	459
Once in a While	470	77	113	80	222	78	135	76	- 4	-.069	607
Frequently	408	81	87	91	220	81	101	74	-17	-.315***	505
Read Science Magazines											
Rarely	483	74	94	76	241	75	148	72	- 4	-.057	652
Frequently	514	82	151	88	250	82	113	75	-13	-.251**	626
Interest in Religion											
Low	503	75	129	84	247	78	127	64	-20	-.339***	666
High	551	72	127	73	272	72	152	69	- 4	-.061	770

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 37

Number and Percent of Respondents Who
Agree That The Benefits of Science Outweigh The Harm

	Television Viewing								CD	Gamma	Total N
	Total		Light		Medium		Heavy		(%Heavy-%Light)		
	N	%	N	%	N	%	N	%			
Overall	937	62	230	66	445	61	262	60	- 6	.083	1522
Sex											
Male	463	63	125	63	238	65	100	59	- 4	.056	738
Female	474	60	104	70	207	57	163	60	-10	.089	784
Age											
18-34	326	53	64	56	159	52	103	54	- 2	.022	610
35-54	301	65	90	70	152	66	59	58	-12	.162	460
55 and older	303	68	73	71	131	67	100	68	- 3	.031	443
Education											
No College	607	61	119	65	277	60	211	61	- 4	.044	989
Some College	328	62	111	68	167	61	51	55	-13	.160*	530
Race											
White	801	64	204	66	399	63	198	62	- 4	.060	1262
Non-white	130	52	23	62	45	48	62	53	- 9	.033	249
Income											
Under $25,000	484	62	98	68	218	60	168	62	- 6	.044	782
Over $25,000	406	62	124	66	206	63	76	53	-13	.156*	659
Newspaper Reading											
Rarely or Never	137	58	32	68	61	55	44	56	-12	.116	237
Occasionally	188	59	39	60	93	60	56	58	- 2	.032	317
Daily	612	63	159	68	291	62	162	61	- 7	.084	968
Watch Science TV											
Hardly Ever	266	60	77	70	120	61	69	52	-18	.222**	439
Once in a While	374	63	91	65	169	62	113	64	- 1	.003	592
Frequently	298	61	61	65	156	60	80	60	- 5	.049	490
Read Science Magazines											
Rarely	400	64	82	69	202	66	116	58	-11	.136*	628
Frequently	373	61	110	66	165	56	97	65	- 1	.020	611
Interest in Religion											
Low	396	61	99	65	177	59	119	60	- 5	.055	649
High	471	63	111	68	234	64	126	59	- 9	.117	744

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 38

Number and Percent of Respondents Who
Respond That Nuclear Power Plants Are A Good Thing

	Television Viewing								CD		
	Total		Light		Medium		Heavy		(%Heavy-	Gamma	Total N
	N	%	N	%	N	%	N	%	%Light)		
Overall	408	26	108	30	211	28	89	20	-10	.137***	1568
Sex											
Male	259	34	82	40	136	36	41	24	-16	.199***	766
Female	149	19	27	18	75	20	47	17	- 1	.022	802
Age											
18-34	139	22	32	27	72	24	35	18	- 9	.118*	622
35-54	130	28	37	29	72	31	20	19	-10	.137*	469
55 and older	140	30	39	36	66	31	34	24	-12	.148*	466
Education											
No College	261	26	55	28	137	29	69	19	- 9	.113**	1024
Some College	145	27	53	32	72	26	20	21	-11	.180**	540
Race											
White	357	27	92	29	194	30	71	22	- 7	.109**	1305
Non-white	48	19	15	37	16	17	16	14	-23	.189*	250
Income											
Under $25,000	183	23	42	28	92	24	50	18	-10	.075	812
Over $25,000	199	30	64	33	102	31	33	23	-10	.145**	667
Newspaper Reading											
Rarely or Never	72	29	23	43	33	27	17	22	-21	.263**	251
Occasionally	66	20	15	23	34	22	17	17	- 6	.091	325
Daily	270	27	71	29	145	30	55	20	- 9	.114**	992
Watch Science TV											
Hardly Ever	112	25	39	32	47	24	26	20	-12	.144*	451
Once in a While	149	24	44	32	73	26	32	17	-15	.155**	609
Frequently	147	29	26	27	91	33	31	23	- 4	.128*	505
Read Science Magazines											
Rarely	164	26	29	25	93	29	41	20	- 5	.090	642
Frequently	170	27	52	30	85	28	33	22	- 8	.098	624
Interest in Religion											
Low	180	27	45	29	89	29	46	23	- 6	.097	663
High	188	24	54	32	97	26	38	17	-15	.174***	768

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 39

Number and Percent of Respondents Who
Respond That The Government Spends The Right Amount Or Too Little On Space Exploration

	Television Viewing								CD		
	Total		Light		Medium		Heavy		(%Heavy-	Gamma	Total N
	N	%	N	%	N	%	N	%	%Light)		
Overall	998	62	253	70	509	65	237	52	-18	-.235***	1597
Sex											
Male	539	70	155	75	281	73	103	59	-16	-.220**	767
Female	459	55	97	62	227	58	134	48	-14	-.192***	830
Age											
18-34	410	65	87	74	212	69	112	55	-19	-.260***	628
35-54	315	65	98	75	168	68	49	46	-29	-.352***	481
55 and older	267	56	65	58	127	58	75	51	- 7	-.094	478
Education											
No College	596	56	114	58	300	61	182	50	- 8	-.131*	1054
Some College	399	74	139	84	206	73	55	60	-24	-.350***	539
Race											
White	874	66	229	71	446	67	199	59	-12	-.166***	1327
Non-white	115	44	22	56	56	54	37	32	-24	-.393***	258
Income											
Under $25,000	459	55	87	57	240	61	132	47	-10	-.165**	828
Over $25,000	496	73	159	81	241	71	96	66	-15	-.235**	679
Newspaper Reading											
Rarely or Never	138	55	30	58	72	60	35	45	-13	-.177	252
Occasionally	203	62	46	69	101	64	56	55	-14	-.182	324
Daily	657	64	177	72	335	67	145	53	-19	-.263***	1020
Watch Science TV											
Hardly Ever	216	46	65	52	103	50	48	35	-17	-.215**	469
Once in a While	405	65	107	76	198	67	99	54	-22	-.300***	619
Frequently	375	74	78	82	207	75	89	66	-16	-.242**	506
Read Science Magazines											
Rarely	370	56	74	60	200	60	96	46	-14	-.204**	664
Frequently	496	79	145	83	243	80	109	71	-12	-.218**	633
Interest in Religion											
Low	462	68	120	78	231	73	110	54	-24	-.350***	675
High	434	55	102	59	227	59	105	48	-11	-.142*	786

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Table 40

Number and Percent of Respondents Who
Reply That They Have Contacted A Public Official About Science

	Television Viewing: Total N	Total %	Light N	Light %	Medium N	Medium %	Heavy N	Heavy %	CD (%Heavy-%Light)	Gamma	Total N
Overall	167	10	54	14	83	10	30	6	- 8	-.261**	1640
Sex											
Male	95	12	36	17	45	12	13	8	- 9	-.272**	780
Female	72	8	18	11	38	9	17	6	- 5	-.211*	860
Age											
18-34	64	10	13	11	38	12	13	6	- 5	-.190	637
35-54	59	12	26	20	25	10	8	8	-12	-.342**	490
55 and older	45	9	15	13	21	9	9	6	- 7	-.249	502
Education											
No College	73	7	15	7	43	8	15	4	- 3	-.213*	1084
Some College	94	17	39	23	40	14	15	16	- 7	-.190	552
Race											
White	146	11	51	16	70	10	24	7	- 9	-.264***	1361
Non-white	18	7	3	7	9	9	6	5	- 2	-.162	265
Income											
Under $25,000	76	9	16	10	39	10	20	7	- 3	-.134	854
Over $25,000	88	13	38	19	40	12	10	7	-12	-.331***	687
Newspaper Reading											
Rarely or Never	23	8	4	7	12	9	7	8	+ 1	+.034	265
Occasionally	24	7	6	8	13	8	5	5	- 3	-.192	335
Daily	121	12	44	18	58	11	19	7	-11	-.323***	1041
Watch Science TV											
Hardly Ever	29	6	16	12	5	2	9	6	- 6	-.283	487
Once in a While	51	8	15	10	30	10	6	3	- 7	-.323**	634
Frequently	85	16	21	22	48	17	16	11	-11	-.231	517
Read Science Magazines											
Rarely	47	7	12	10	25	7	10	5	- 5	-.237	680
Frequently	107	17	36	21	54	18	17	11	-10	-.217*	639
Interest in Religion											
Low	62	9	19	12	31	10	12	6	- 6	-.254*	687
High	84	10	28	15	40	10	16	7	- 8	-.259**	814

*p<.05 **p<.01 ***p<.001

The number and percent of light, medium, or heavy viewers within each control group (eg. males/females) who give this response; the percents within each column or row do not add to 100%.

Appendix II

Figures

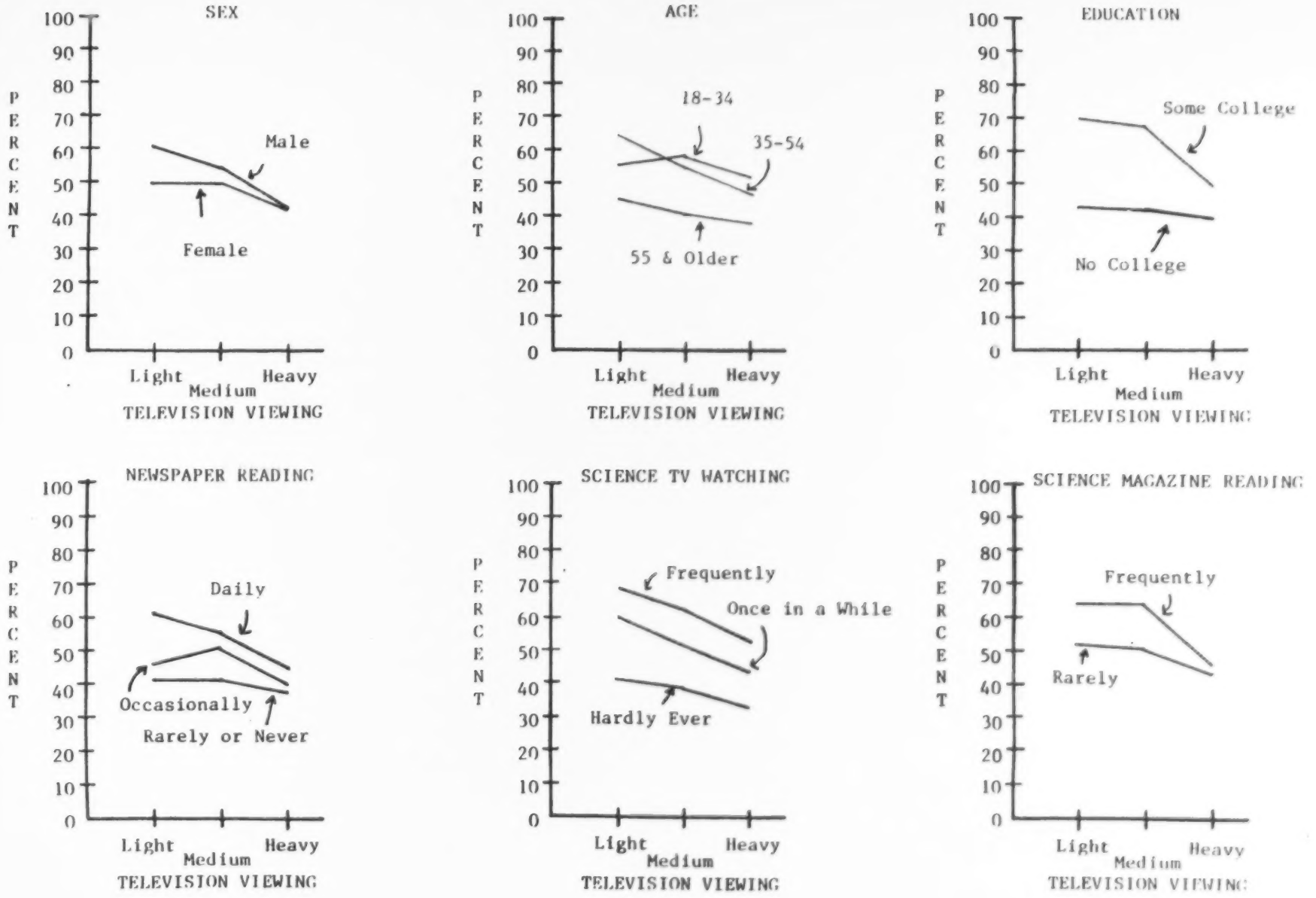


Figure 1: Relationship Between TV Viewing and Having a High Score on an Index Indicating That Respondents Have a Positive Image of Science

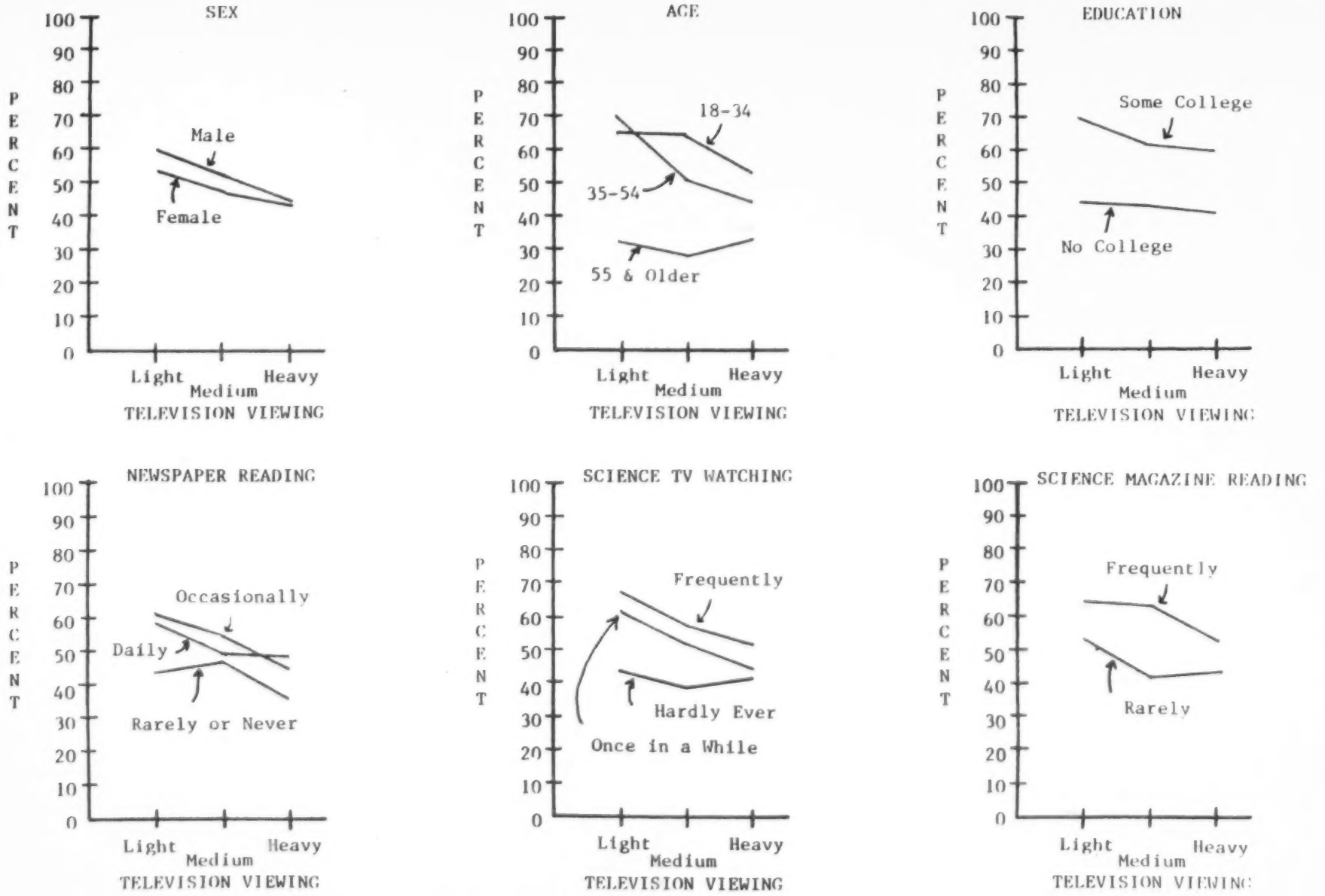


Figure 2: Relationship Between TV Viewing and Having a High Score on an Index Indicating That Respondents Have a Positive Image of Scientists

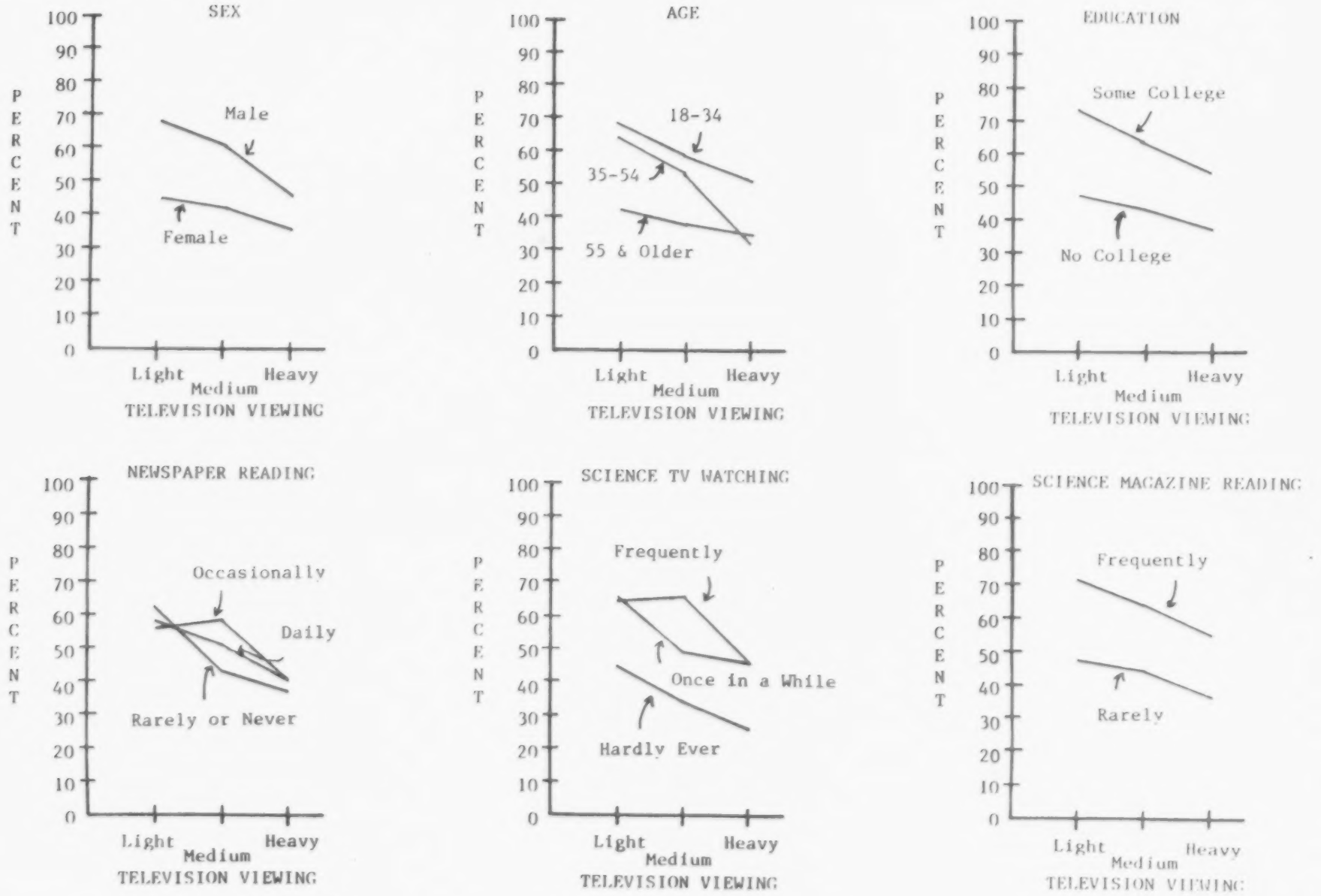


Figure 3: Relationship Between TV Viewing and Having a High Score on an Index Indicating That Respondents Have a Positive Image of Technology

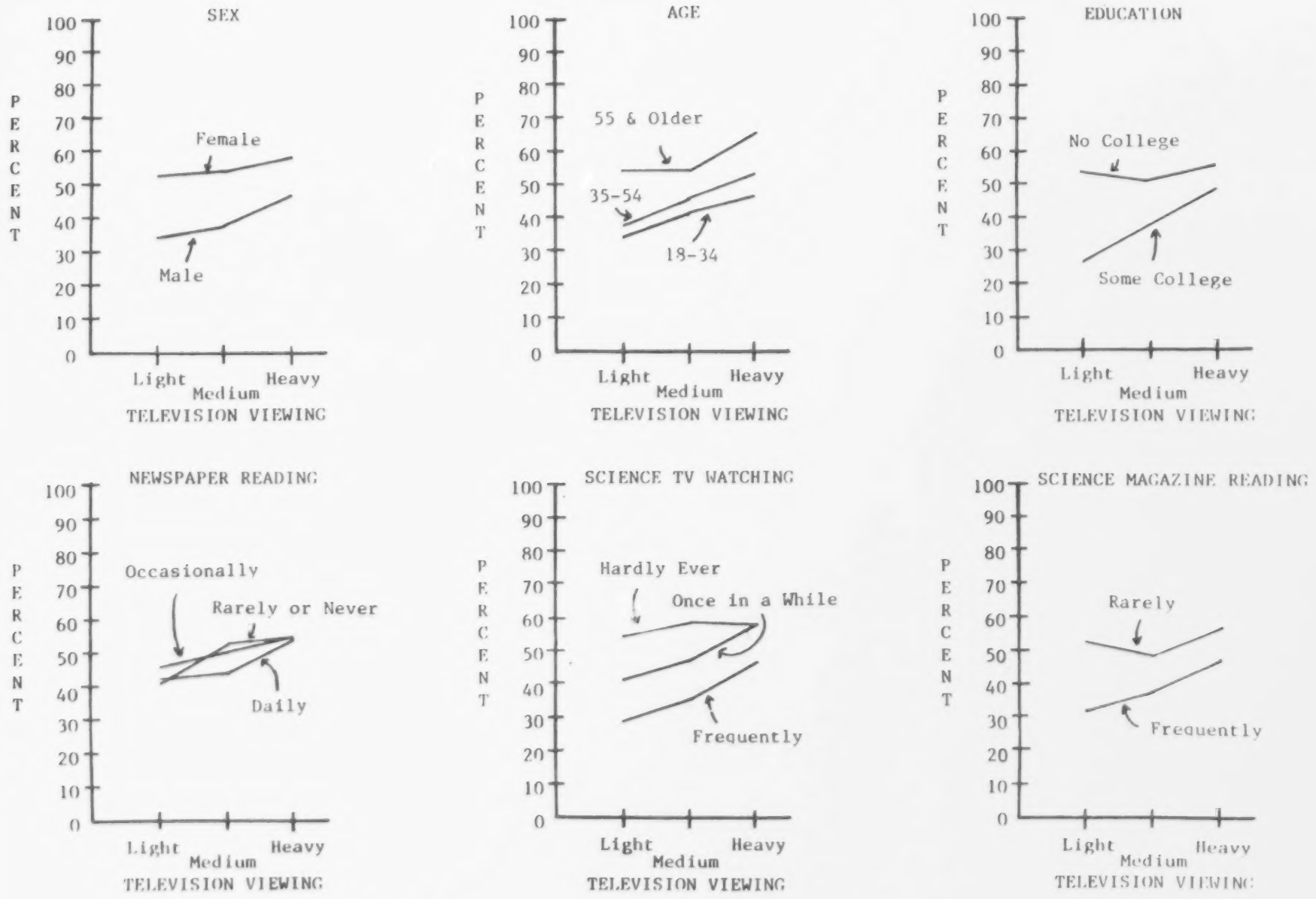


Figure 4: Relationship Between TV Viewing and Having a High Score on an Index Indicating That Respondents Think Science Should Be Restrained

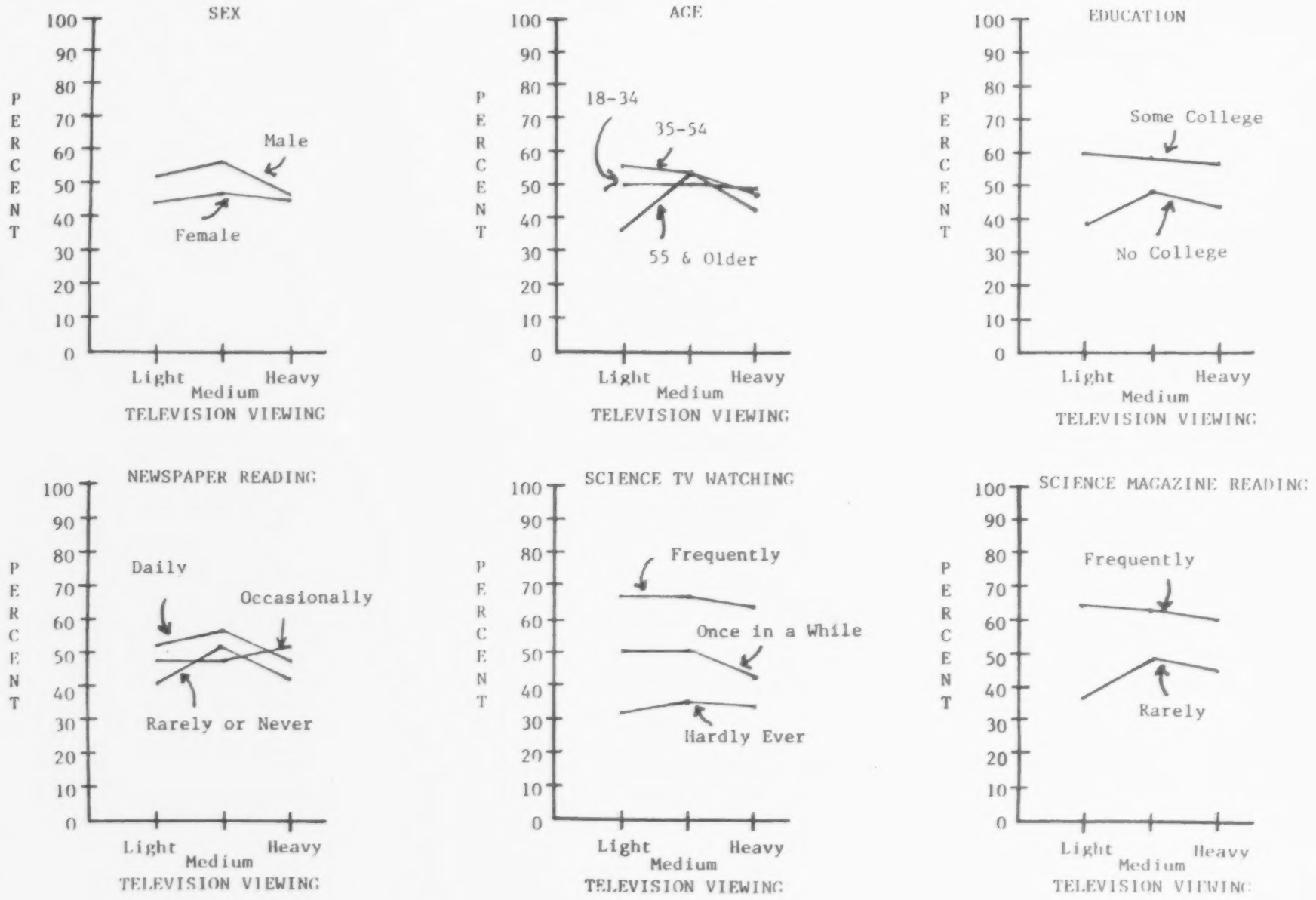


Figure 5: Relationship Between TV Viewing and Having a High Score on an Index Indicating Respondents' Interest in Science

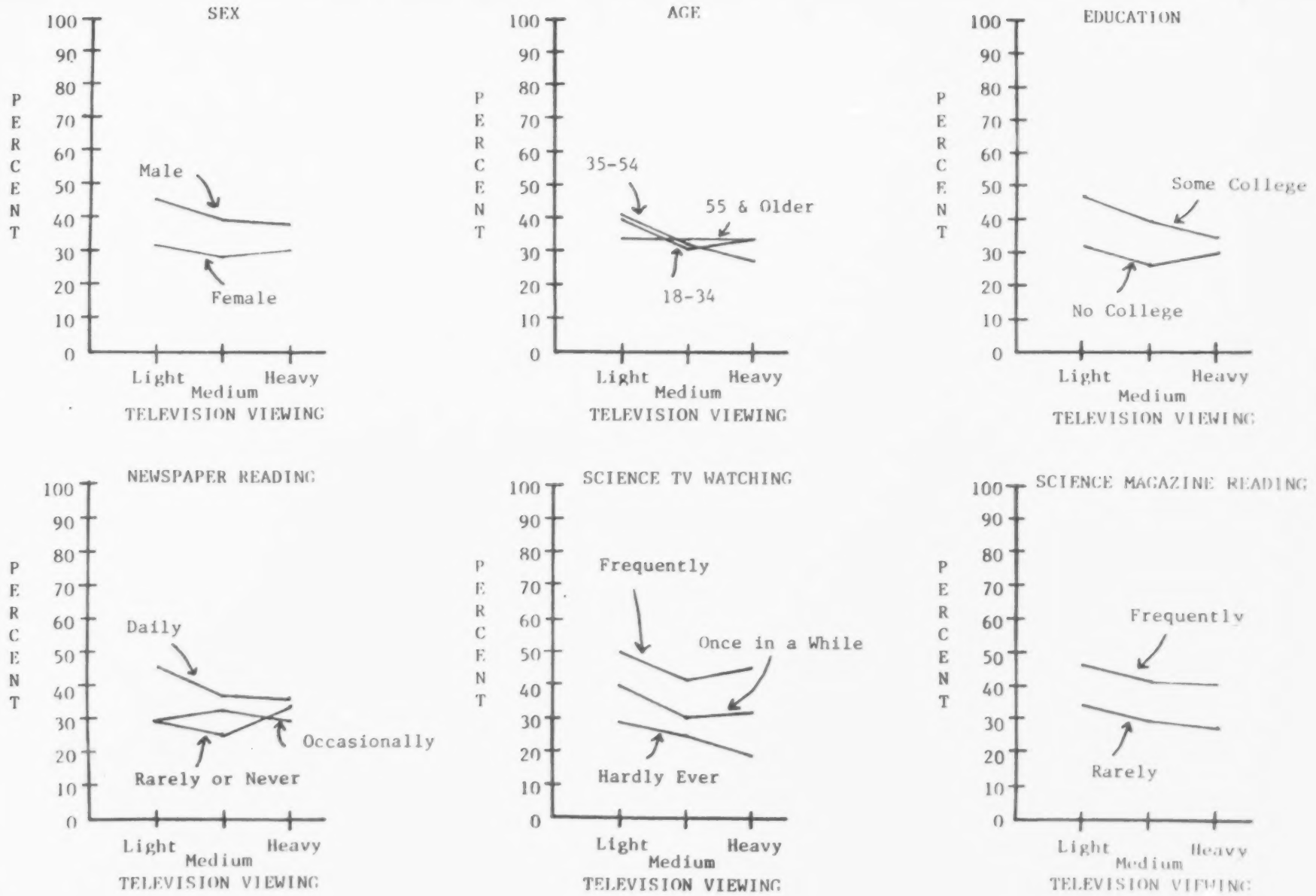


Figure 6: Relationship Between TV Viewing and Having a High Score on an Index Indicating That Respondents Are Well Informed About Science

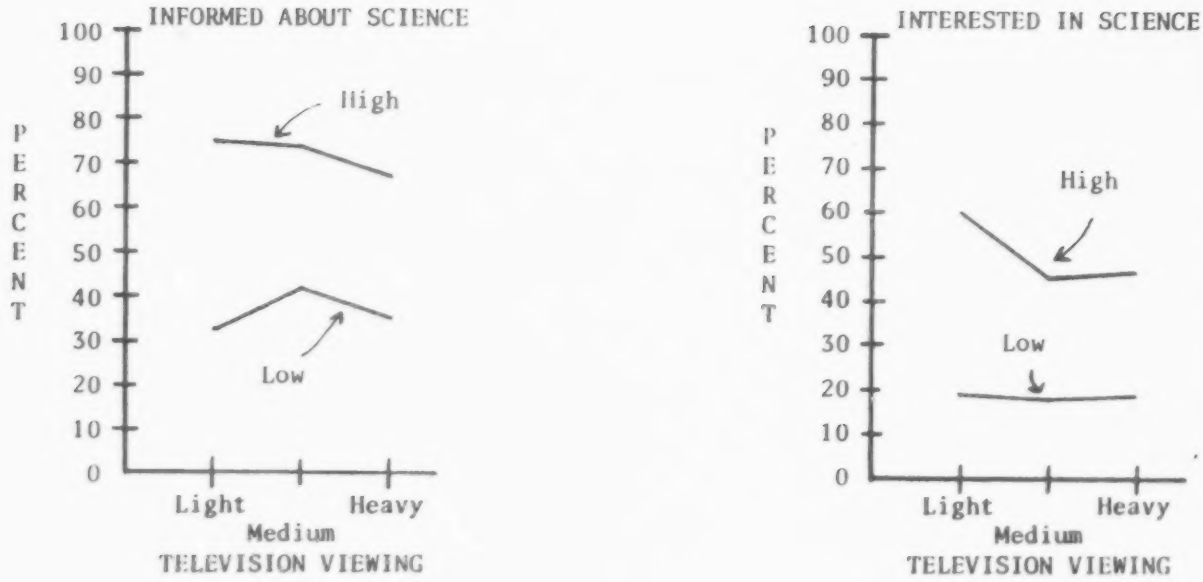


Figure 7: Relationship Between TV Viewing and Indices Indicating That Respondents Are Informed About Science Or Interested In Science, Controlling for the Other Index

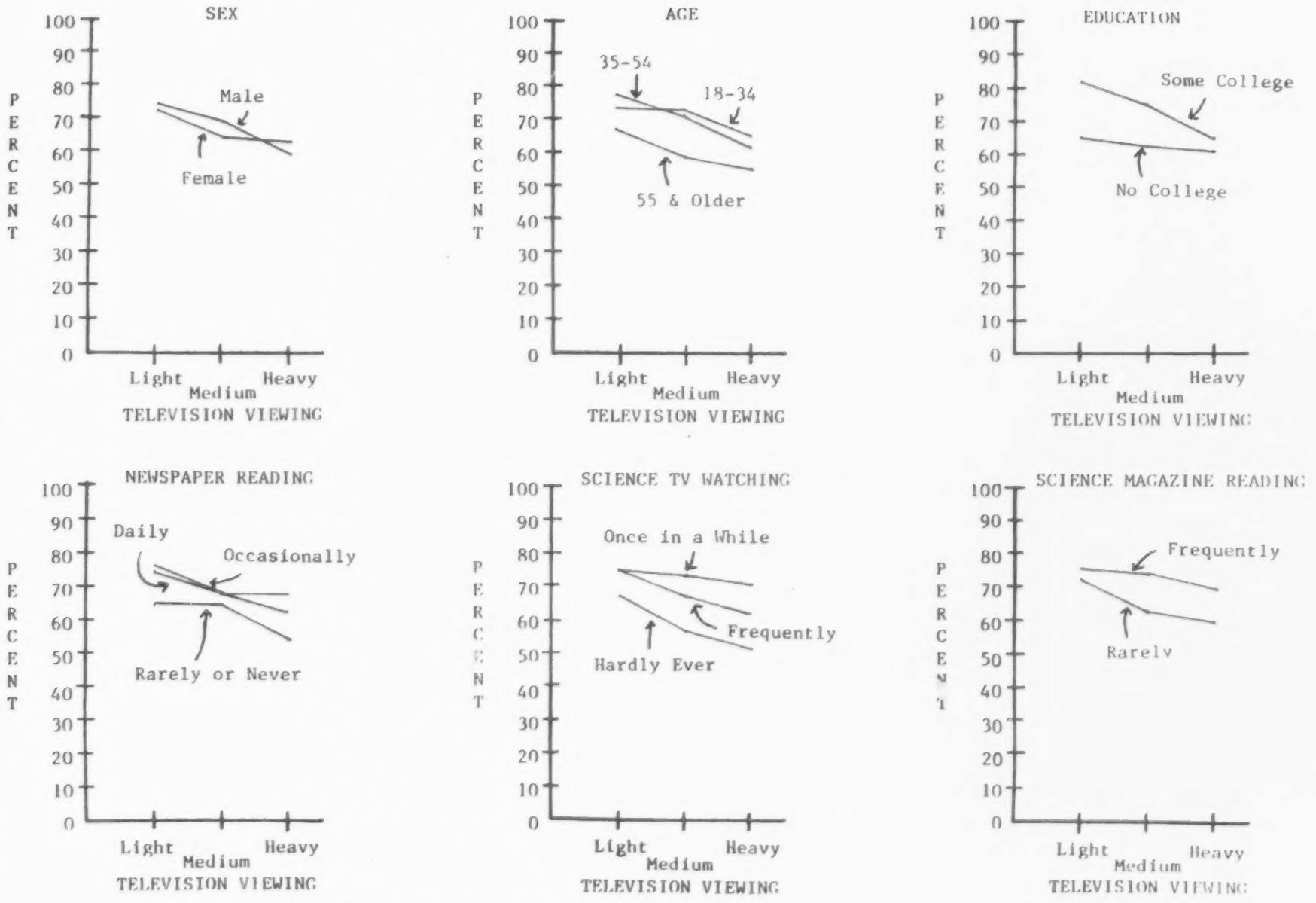


Figure 8: Relationship Between TV Viewing and Disagreeing That Scientists Are Odd and Peculiar People

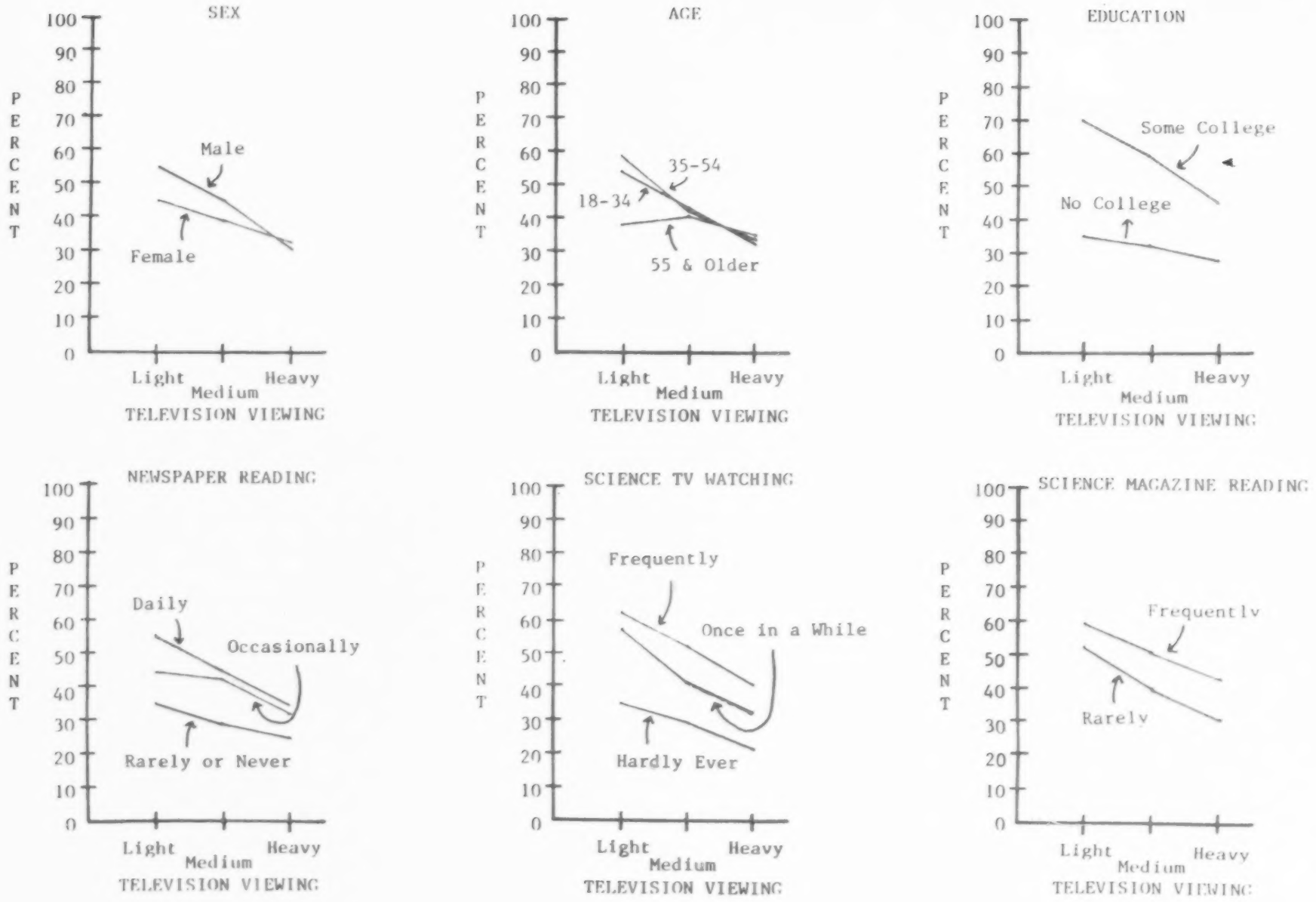


Figure 9: Relationship Between TV Viewing and Disagreeing That A Scientist's Work is Dangerous

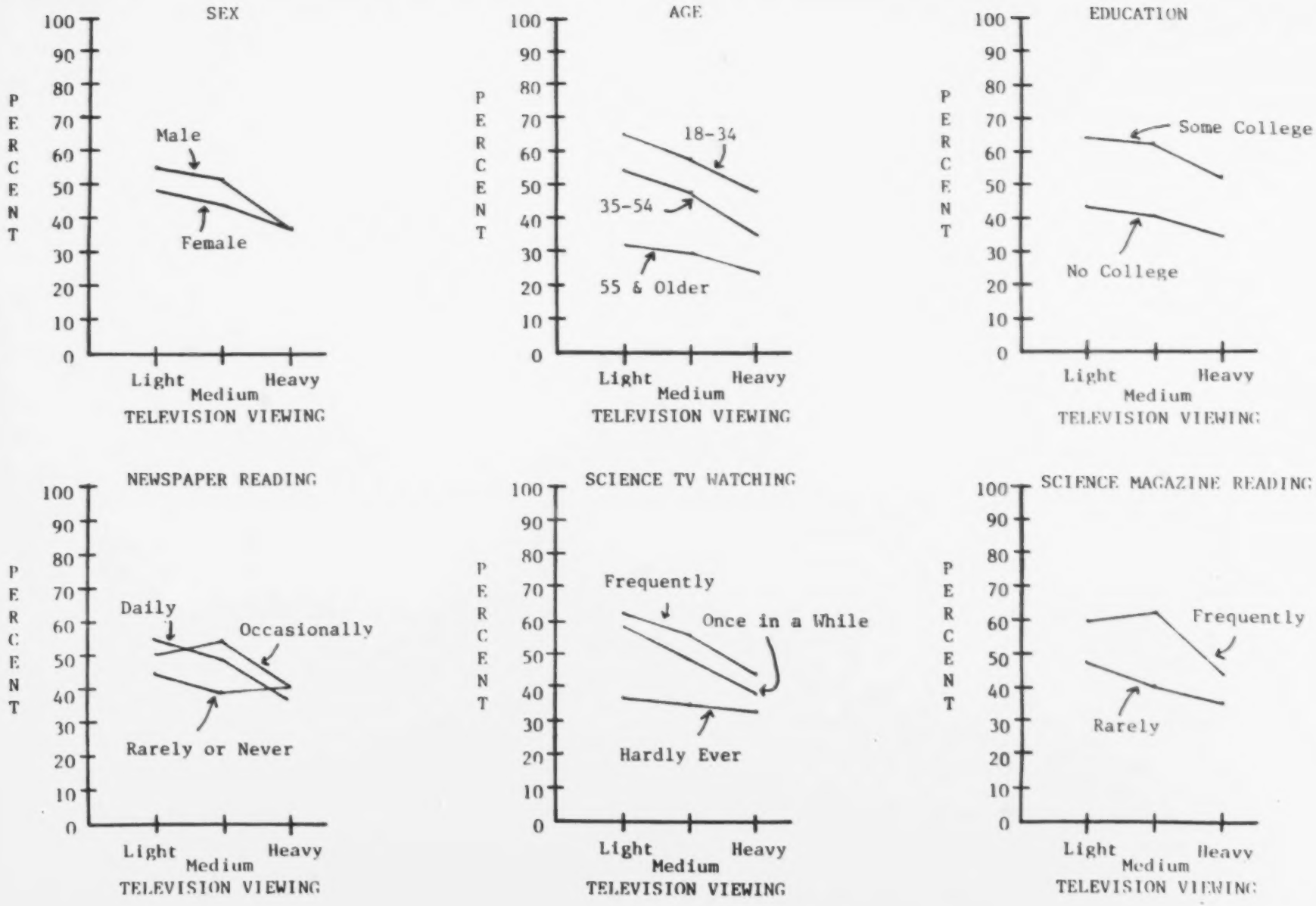


Figure 10: Relationship Between TV Viewing and Disagreeing That Scientists Have Few Interests But Work

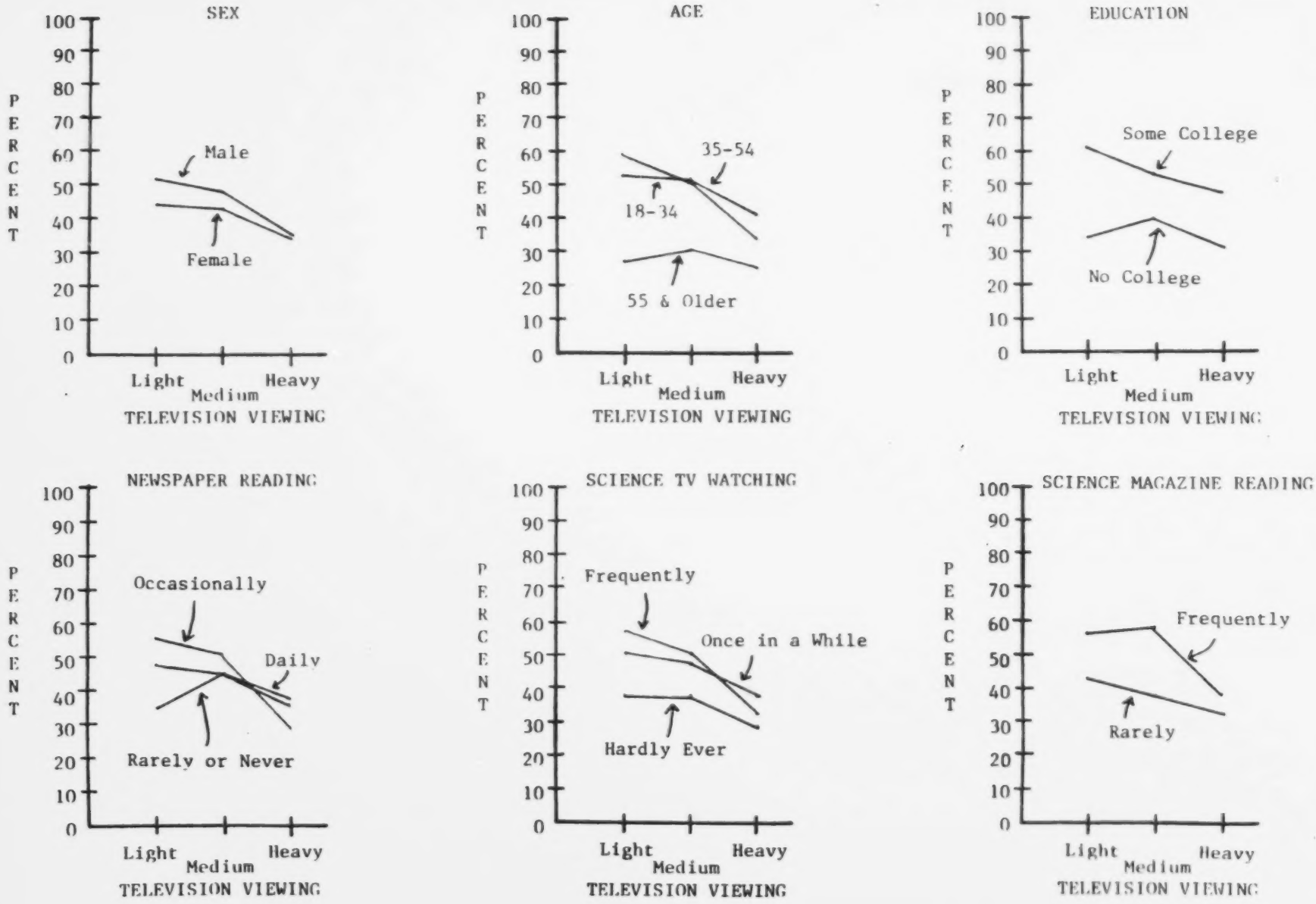


Figure 11: Relationship Between TV Viewing and Disagreeing That Scientists Spend Little Time With Their Family

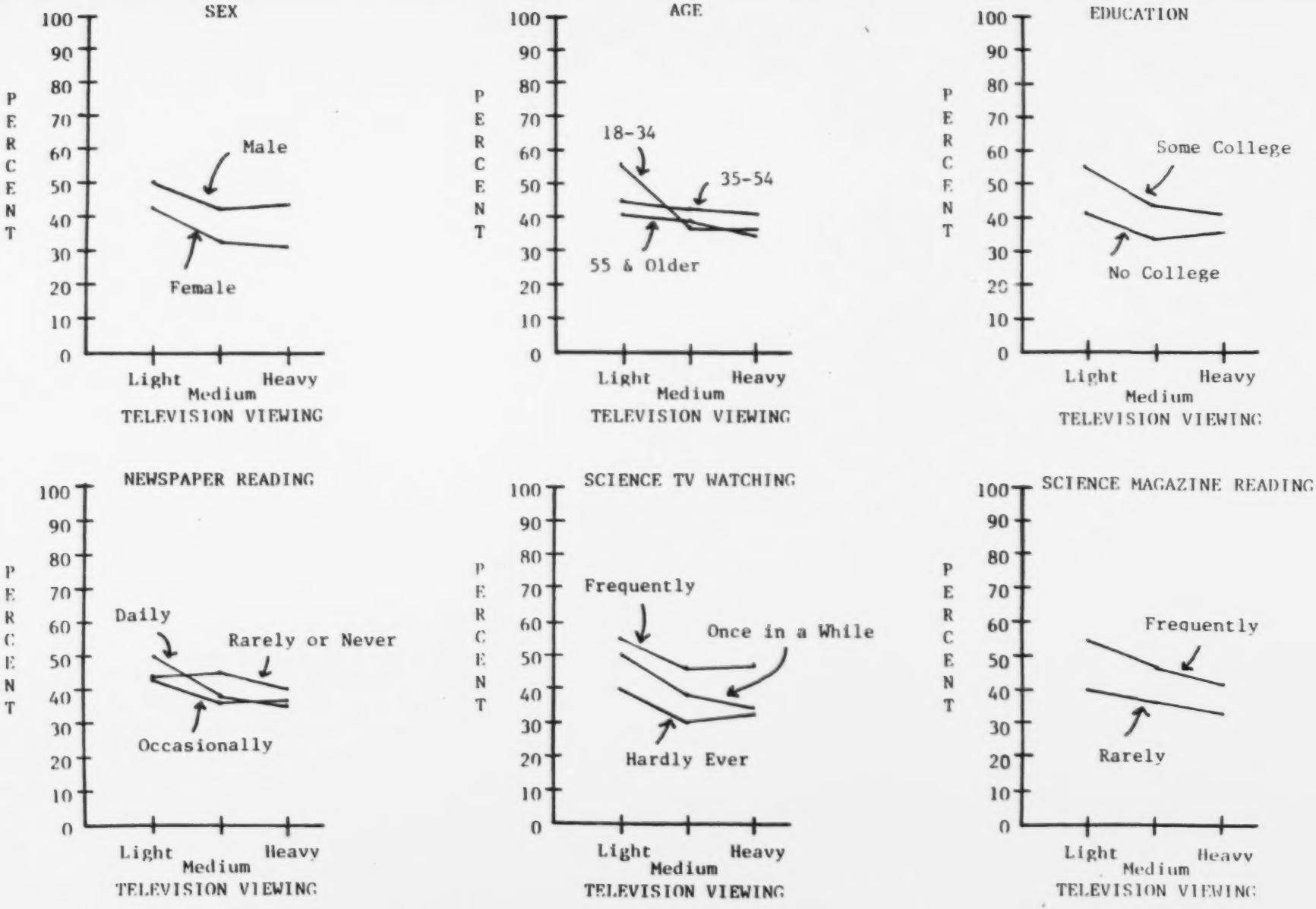


Figure 12: Relationship Between TV Viewing and Responding That Science Jobs Rate Better Than Most

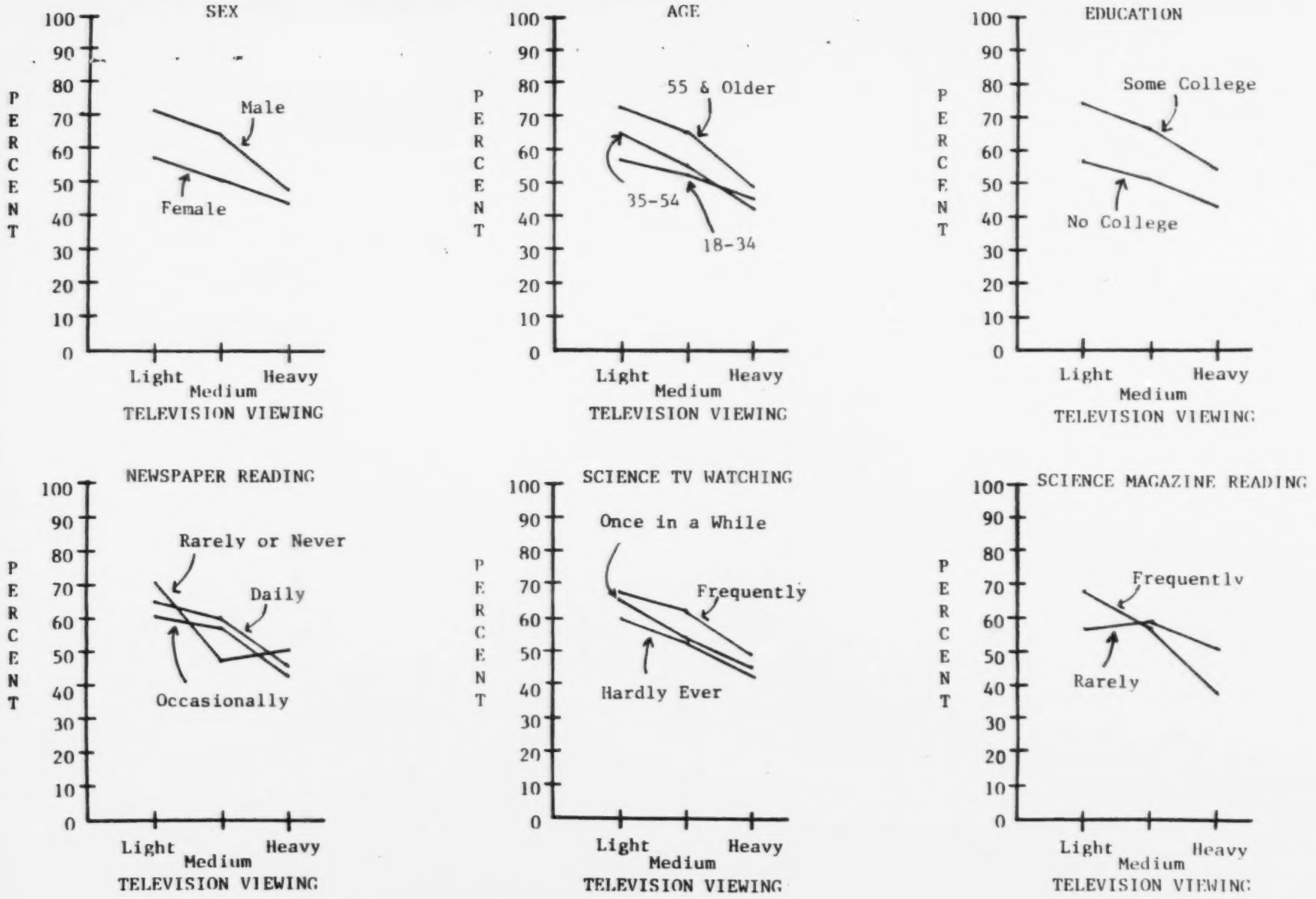


Figure 13: Relationship Between TV Viewing and Agreeing That Astrology Is Not Scientific

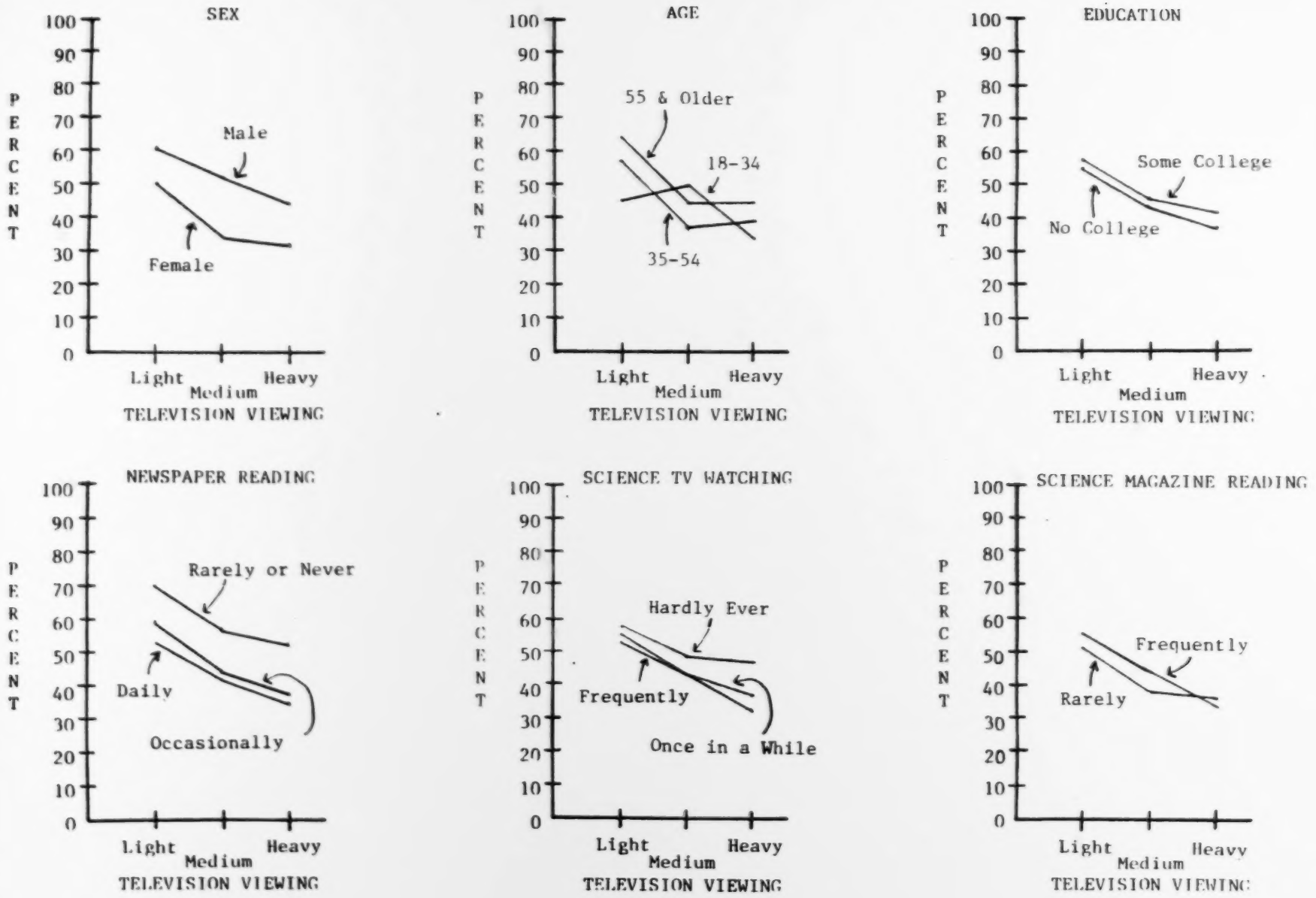


Figure 14: Relationship Between TV Viewing and Respondents Replying That They Do Not Read Horoscopes

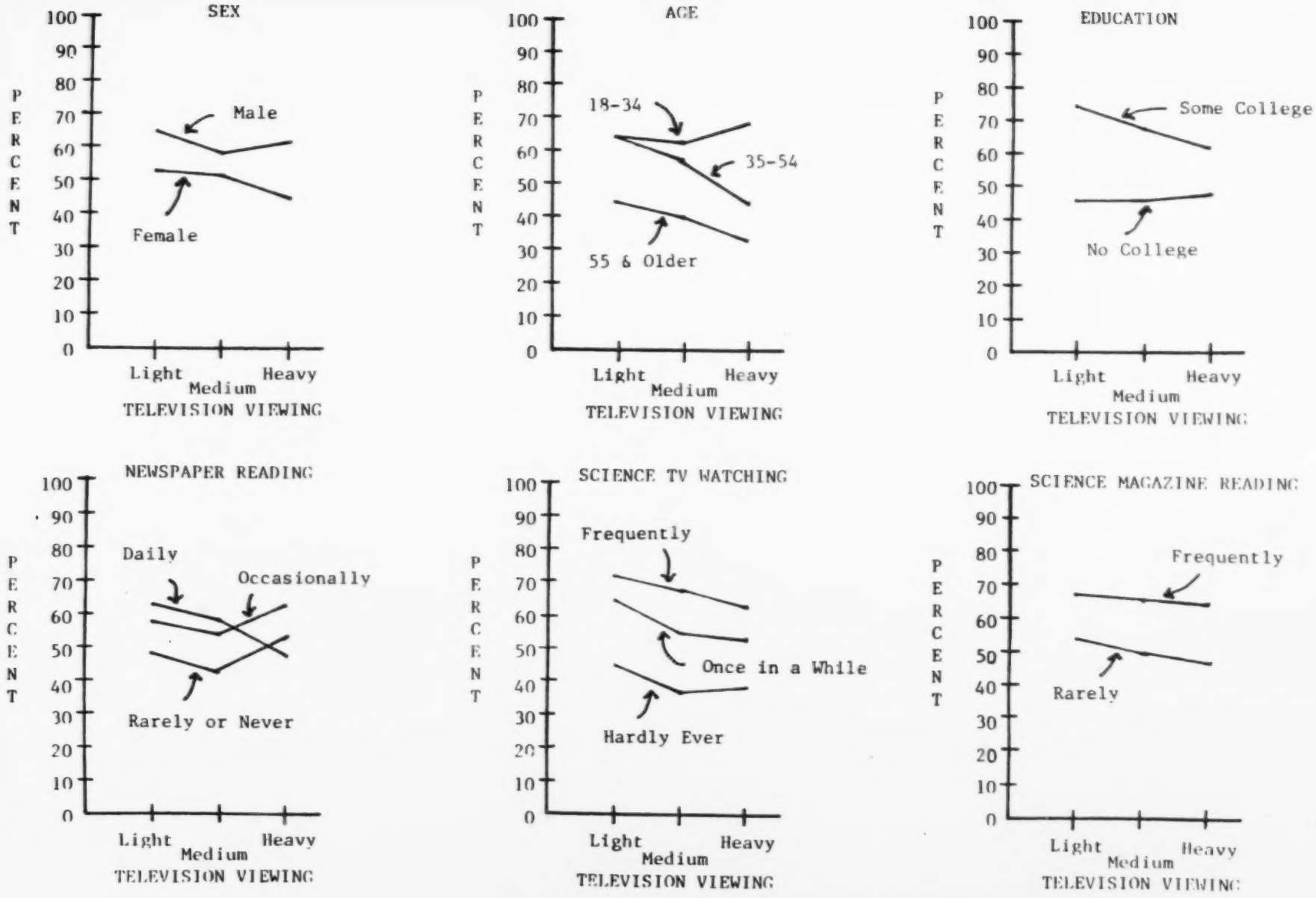


Figure 15: Relationship Between TV Viewing and Having A Low Score On A Science-Religion Index

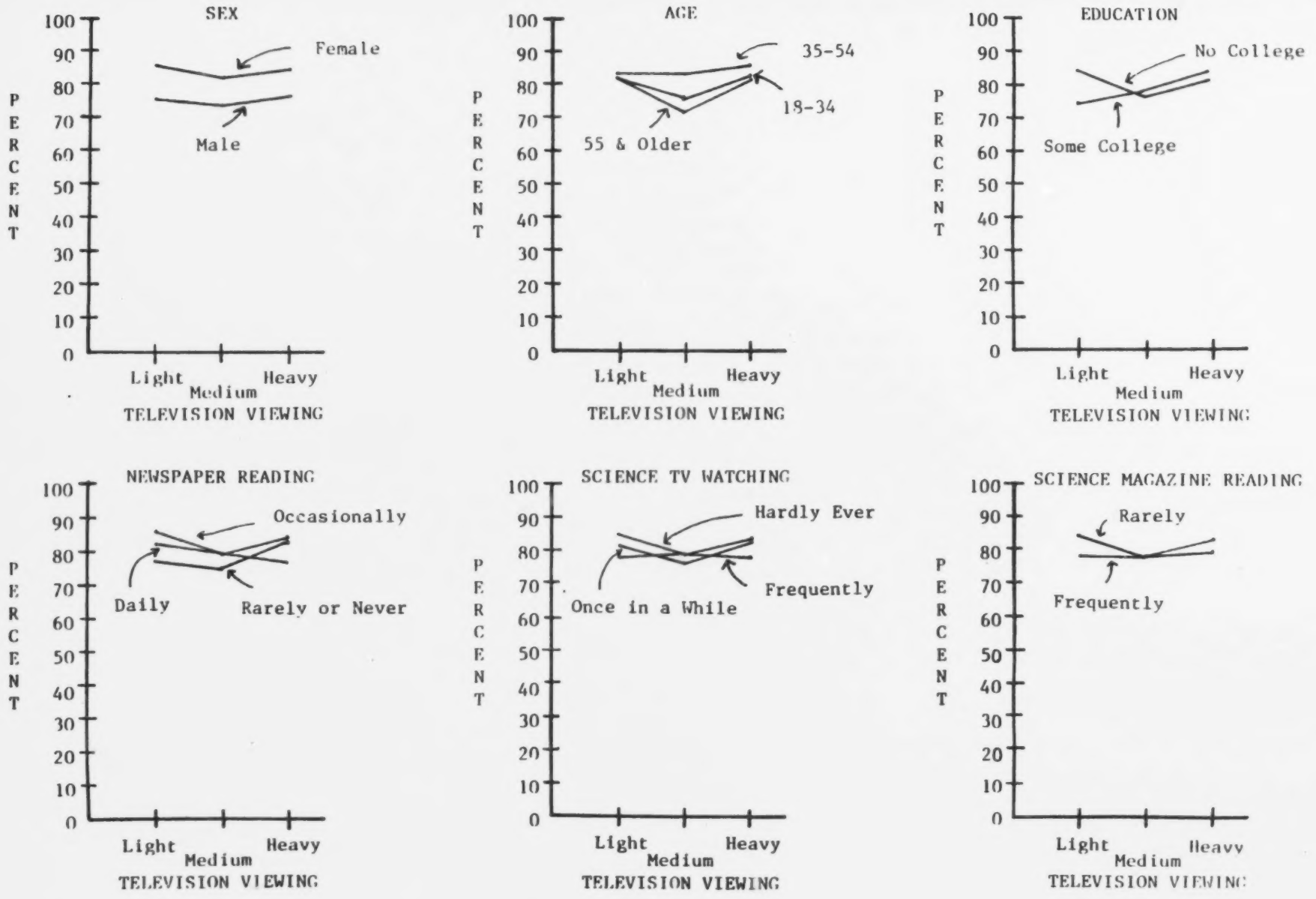


Figure 16: Relationship Between TV Viewing and Responding That Alcohol Is Major Health Problem

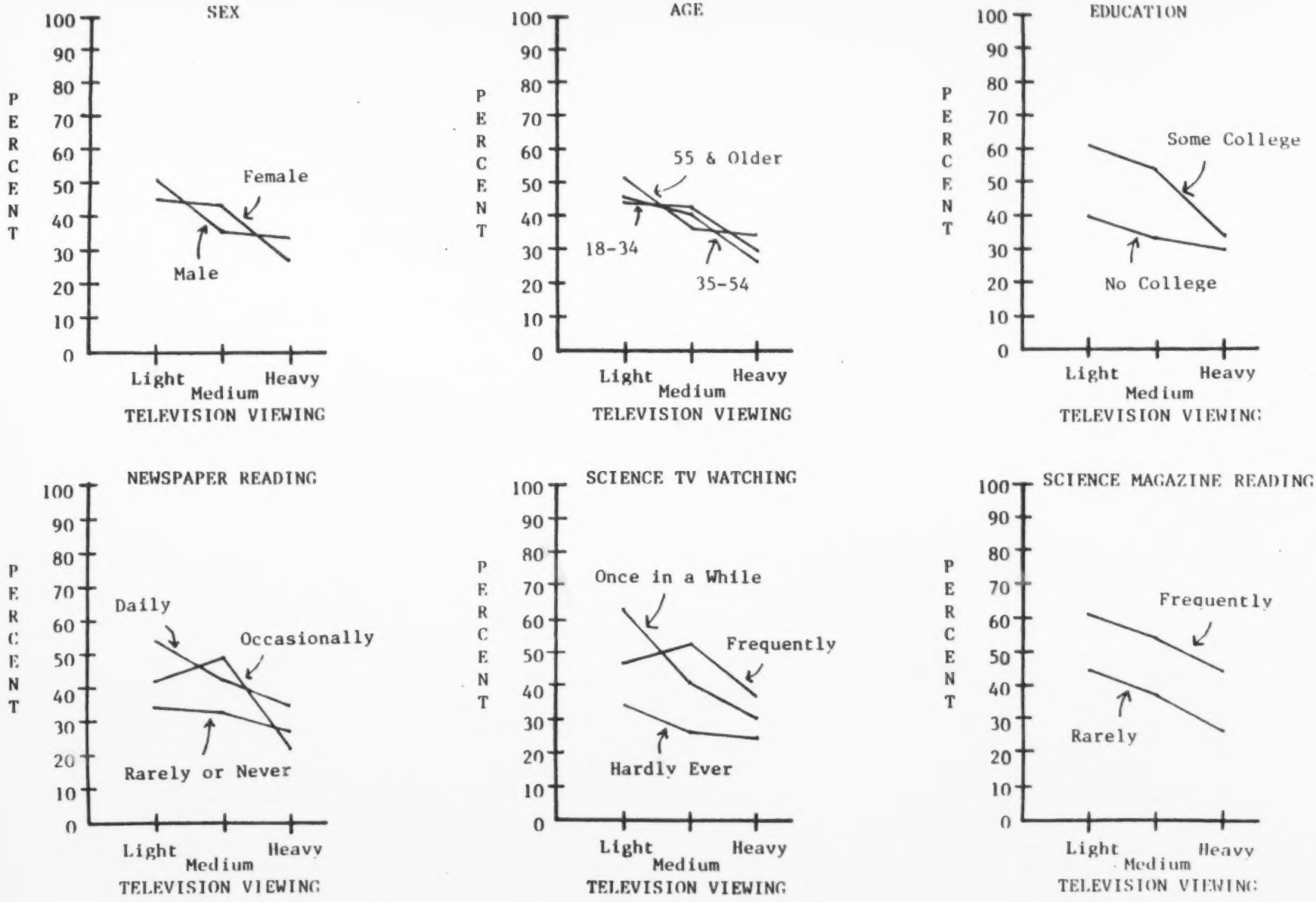


Figure 17: Relationship Between TV Viewing and Respondents Replying That They Usually Wear Seatbelts In A Car

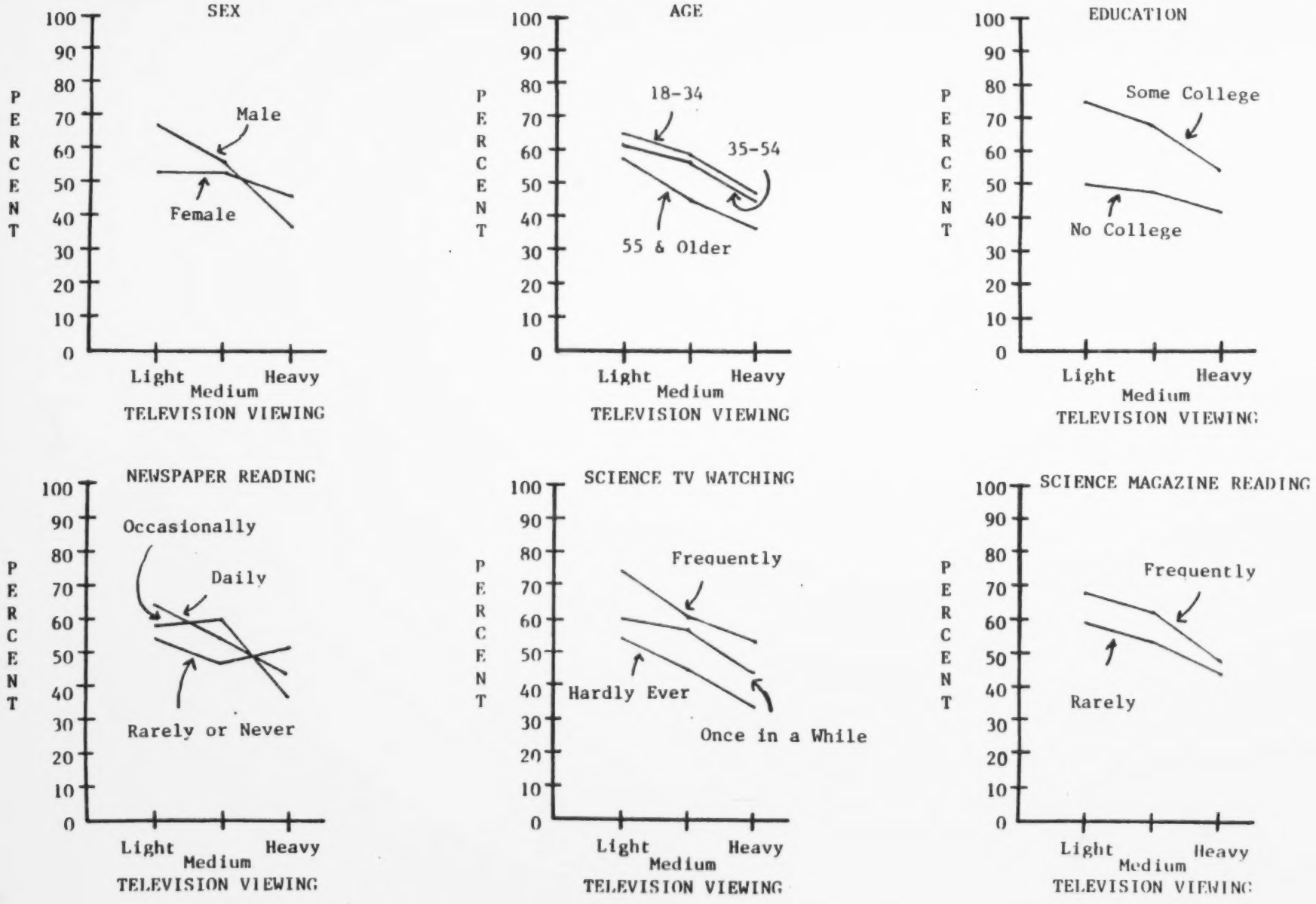


Figure 18: Relationship Between TV Viewing and Disagreeing That Science Makes Life Change Too Fast

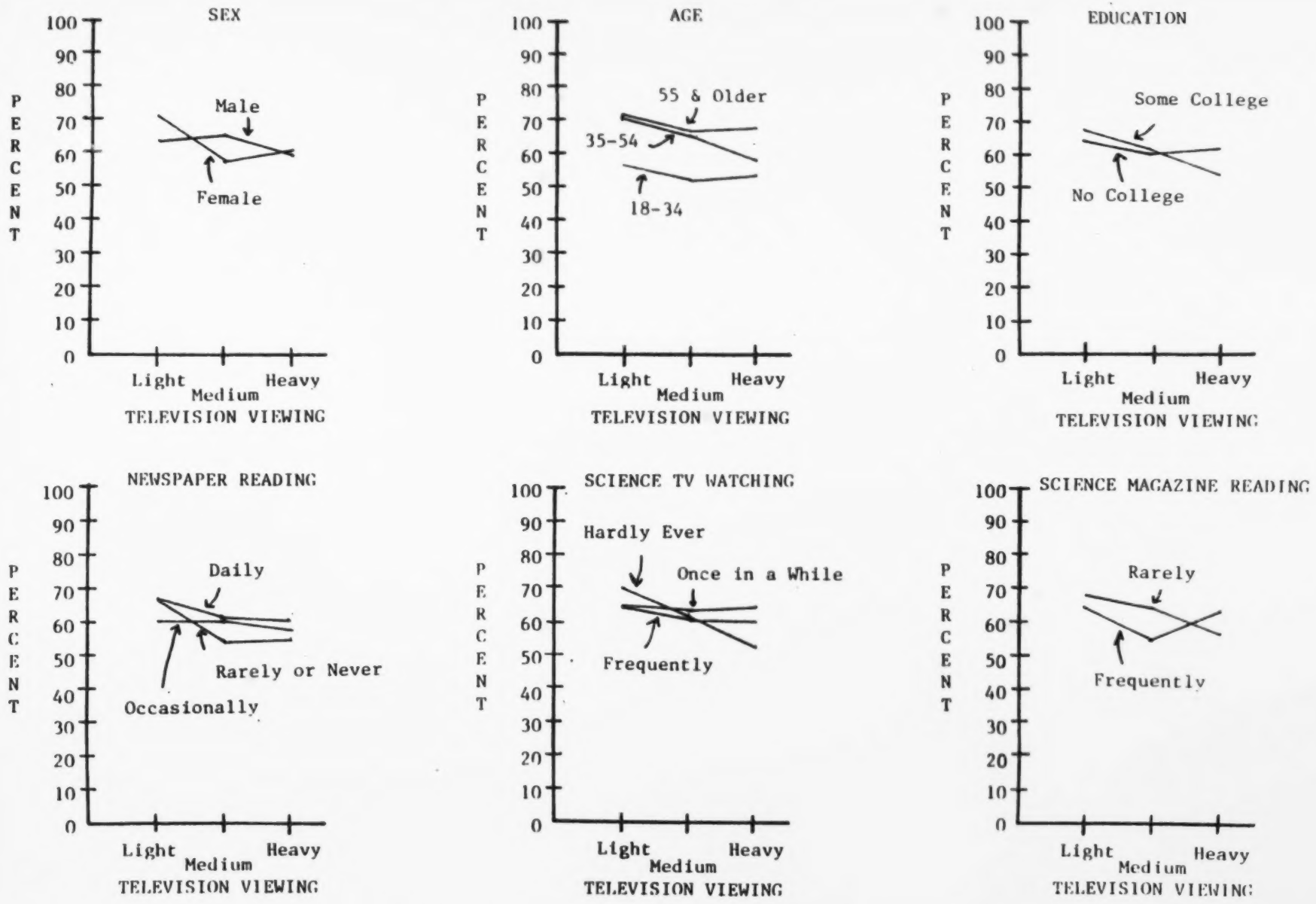


Figure 19: Relationship Between TV Viewing and Agreeing That The Benefits Of Science Outweigh The Harm

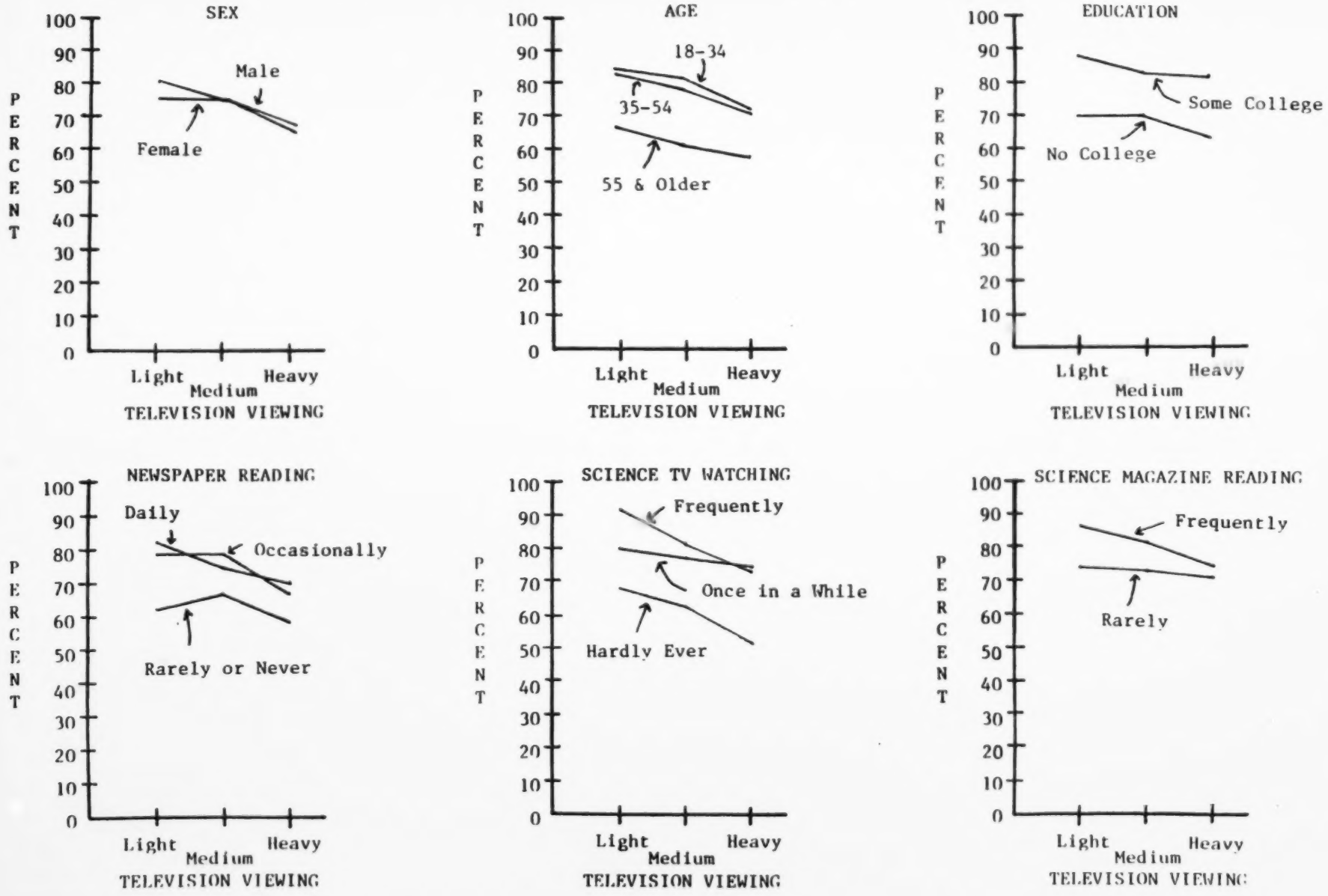
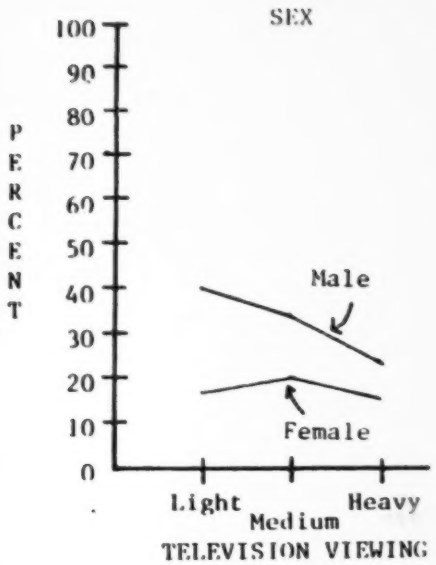
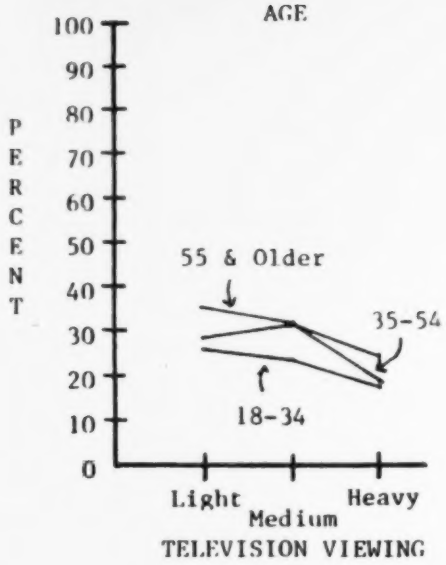
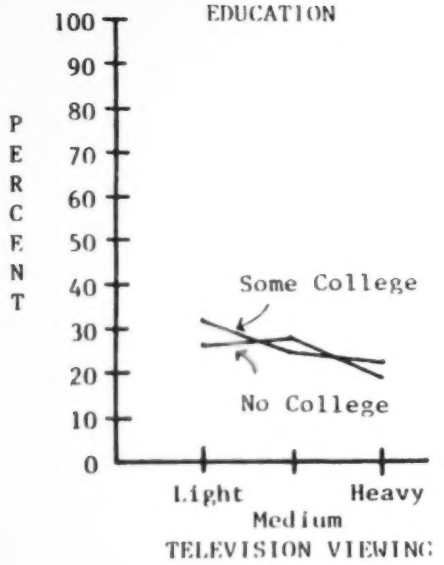
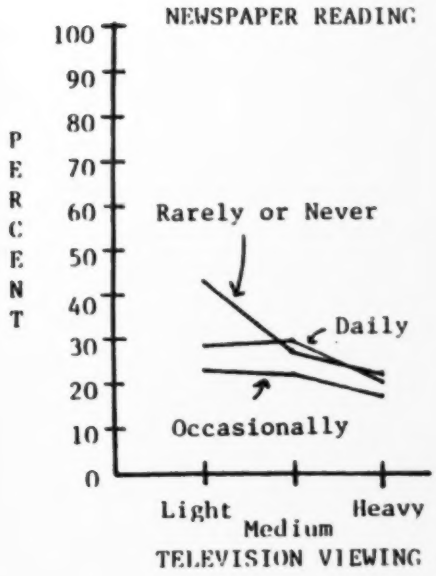


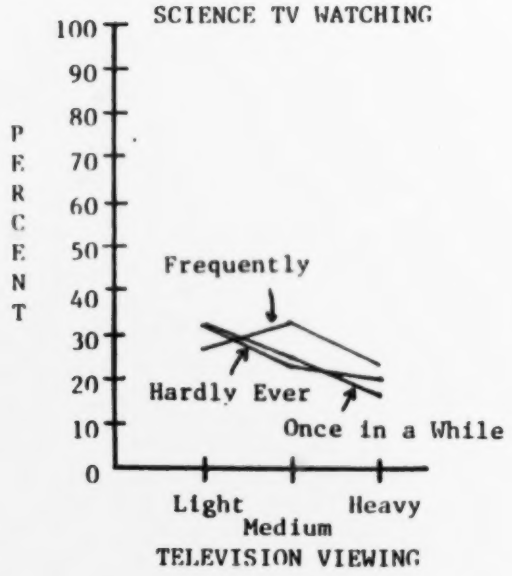
Figure 20: Relationship Between TV Viewing and Disagreeing That Science Causes More Problems Than Solutions











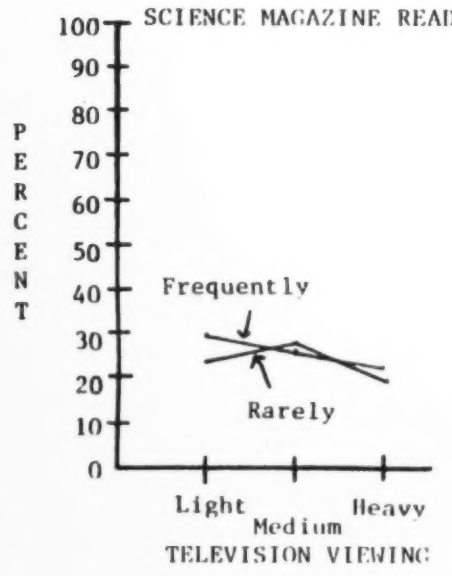


Figure 21: Relationship Between TV Viewing and Responding That Nuclear Power Plants Are A Good Thing

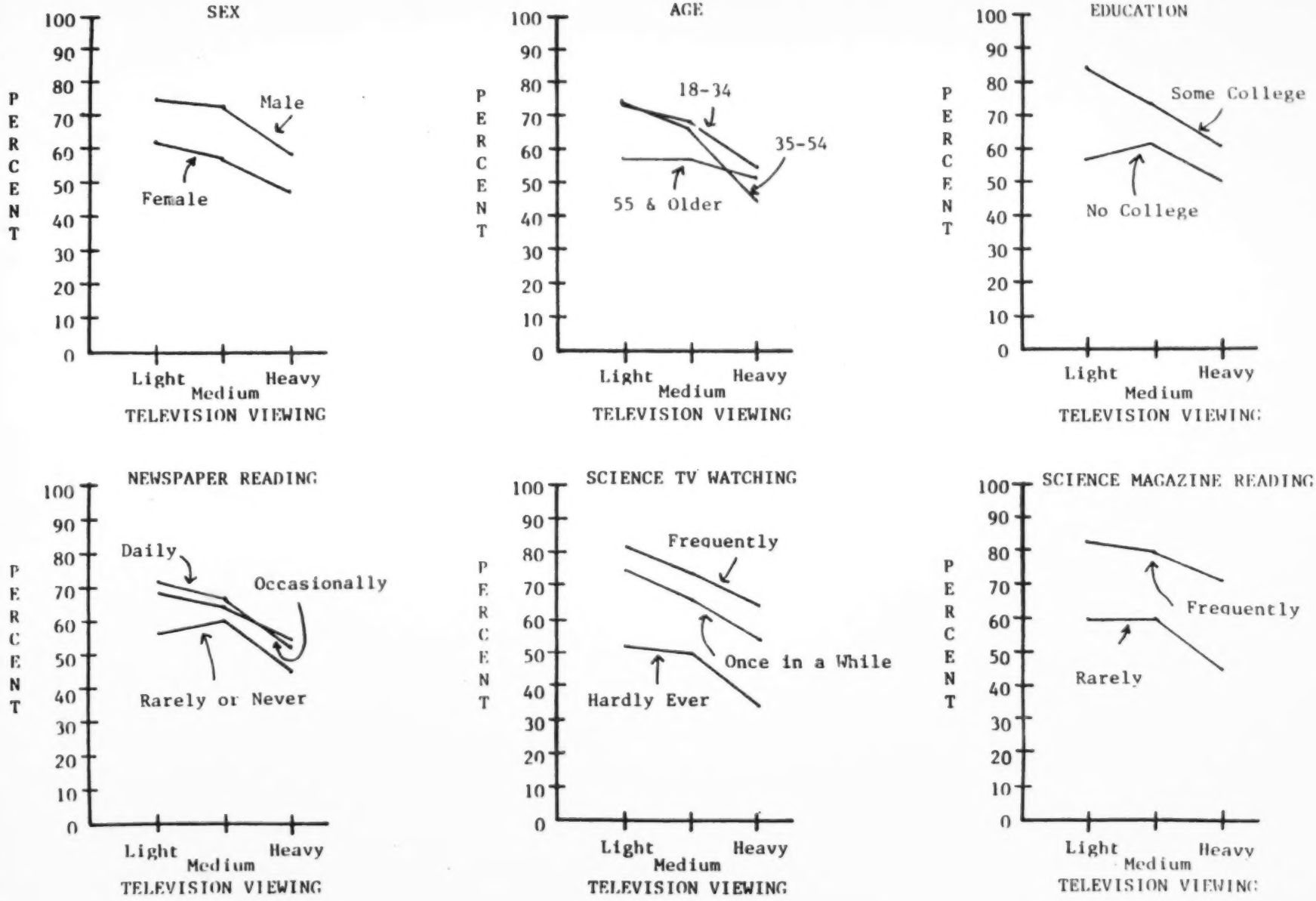


Figure 22: Relationship Between TV Viewing and Responding That The Government Spends The Right Amount or Too Little on Space Exploration

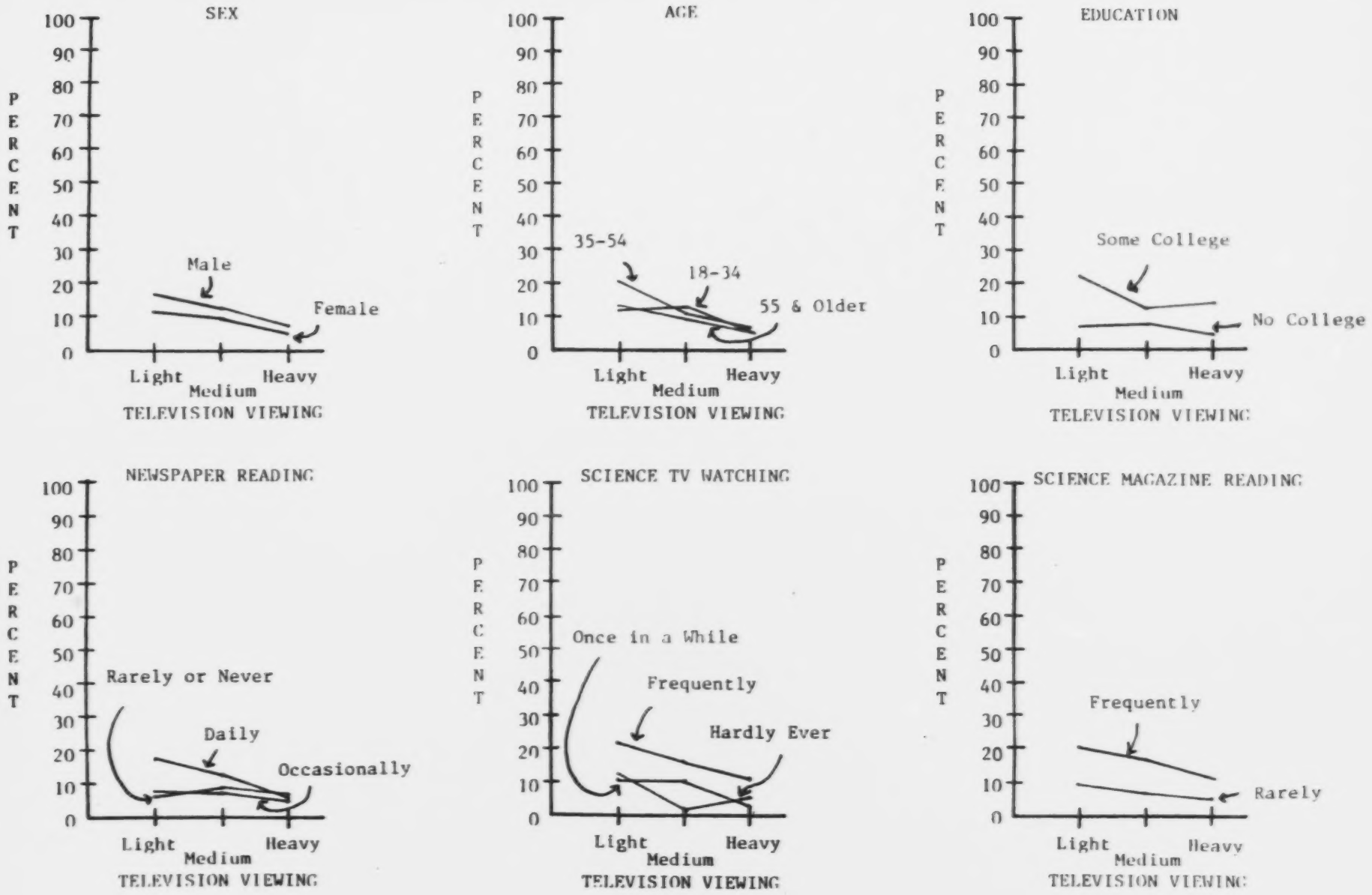


Figure 23: Relationship Between TV Viewing and Respondents Replying That They Have Contacted A Public Official About Science

Appendix III

Methodology

Message System Analysis

Message system analysis is designed to investigate the aggregate and collective premises defining life in representative samples of mass-produced symbolic material. This analysis rests upon the reliable determination of unambiguously perceived elements of communications. The data analyzed in this project do not reflect what particular individuals may see but what large communities absorbed over long periods of time.

The recording instrument

The recording instrument examines numerous aspects of the programming and its characters. It isolates time, place and setting of programs, as well as themes and aspects of life (science, nature, violence) included in the plots of these programs. Items recorded for characters include demographic variables (occupation, age, sex, race, marital status), as well as a number of descriptive variables ("good-bad", success, committing violence, victimization, marital status, physical and mental illness, and other health-related information).

The instrument was designed using an analytic framework that isolates the overall portrayal of topics, such as science and technology, in regard to four basic notions called attention, emphasis, tendency, and structure (Gerbner, 1969). Attention is measured by determining the kinds of topics, scientific and other, that are present and how often they appear. Emphasis examines these content elements in terms of their importance or relevance to the plot of the program. Tendency measures whether a particular topic or character is presented

in a positive, neutral, or negative way. Finally, the last construct combines the three others in a coherent structure. appear together in the entire message system.

The samples

The sample includes all prime-time dramatic programs in the Cultural Indicators videotape archives broadcast between 1973, the year a detailed occupational coding scheme was added to the recording instrument, and 1983.

The time parameters of the sample were: Monday through Saturday evenings from 8:00 to 11:00 p.m. EST and Sunday evenings from 7:00 to 11 p.m. EST. Each program broadcast during these time parameters was videotaped, logged and placed in the archive. Twelve week-long samples were videotaped and subjected to the recording instrument over this ten year period. Nine of the samples (each year but 1980) were annual weeks of fall programming. For the 1980 sample we had to use a week of programming broadcast in the spring of 1981 due to a strike by the Screen Actors Guild that delayed the normal start of this season. Two additional week-long samples of programming, broadcast in the spring of 1975 and 1976, were analyzed as part of our methodological work on sampling.

The size of the yearly sample -- one week of programming -- has been subjected to a number of methodological studies. We find that the week-long sample is adequate and that in regard to dramatic programming, the solid-week sample is at least as generalizable to a year's programming for basic dimensions -- network, program format, program type, and tone -- as larger randomly drawn samples (Eleey, 1969).

Moreover, analyses of variance conducted on violence-related content data collected over seven consecutive weeks of fall 1976 prime-time dramatic programming revealed no significant differences by week for dependent measures such as the number of violent actions, the duration of violence, and the significance of violence. There were, however, significant main-effects for program-related variables including network, type of program, time of broadcast, new or continued program, and so on; but there were no significant interactions by sample week (Signorielli, Gross & Morgan, 1982).

While a larger sample may increase precision, our work has shown that, given our operational definitions and multidimensional measures that are sensitive to a variety of significant aspects of television content, the one-week sample yields remarkably stable results with high-cost efficiency.

Units of analysis

Two basic units of analysis were examined in this study: individual fictional stories (programs) and characters. The fictional story unit was a play produced for television (including situation comedies), a feature film or a made-for-television movie broadcast during the sample period, or a cartoon. The character unit of analysis examined major characters (those who portrayed roles essential to the plot) and minor characters (all other speaking roles).

Coding and training

In message system analysis coders are trained to do a specialized kind of observation. They must reliably make the discriminations required by the recording instrument and record them in a specific form. Coders must focus only upon what is presented explicitly in the material they are coding and not how it might be judged by a critical viewer. Coders are instructed to use only specific evidence in the program for each coding decision they make; they cannot fall back upon or use their prior knowledge of specific programs or characters. Their task is to generate the data for the subsequent analysis that will permit interpretation of the common message elements and structures that are available to the public of diverse viewers.

For the full analysis of the sample of programs a coding staff of 12 to 16 people was recruited and hired each year to work for a maximum of 20 to 25 hours each week. The training period required about four weeks of instruction and testing. Training began with an introductory session devoted to item-by-item discussions of the recording instrument. The trainee group was then split into randomly assigned coding teams of two each, and all coder-pairs began a training task that involved the viewing and coding of ten specifically selected dramatic programs that had been previously viewed and coded by the supervisory staff. Each coder-pair, in both training and in the actual data collection phase of the study, worked independently of all other pairs, and returned a joint coding for each program. Coder-pairs then met with members of the supervisory staff to discuss the difficulties encountered in the training exercise and to compare their coding of the programs with that of the supervisory staff. Coders continued to code

training programs and consulted with the staff until all problems were resolved.

During both the training and data-collection phases of the study, the coder-pairs worked independently of all other pairs and were able to monitor the assigned videotape of the program as often as necessary. All programs in the annual samples were independently coded by two coder-pairs for the reliability analysis.

Assessment of reliability

The purpose of reliability measures in content analysis is to ascertain the degree to which the data are consistent -- that is, coders have applied the recording instrument in the same way. Inconsistencies in the data may result either from bias on the part of the coder or ambibuity in the coding instrument. Theoretically, both types of contamination can be corrected by refining the instrument, by intensifying coder training, or, as a last resort, by eliminating the unsalvageable variable or dismissing the incorrigible coders. Measures of reliability thus serve both as diagnostic tools in the confirmation of the recording instrument and as arbiters of the replicability of the procedure, ensuring confidence in the final data.

In this project reliability measures served both of these functions. During the preliminary period of instrument revision and coder training, they were used to identify problem areas in the recording process; after all the data had been collected, the final measures computed on the body of double-coded data determined the acceptability of varibles for the analysis and provided guidelines for their interpretation.

Simple measures of the percent of agreement between coders are inadequate indicators of reliability, since they fail to account for the amount of agreement expected by chance. Agreement due merely to chance gives no indication that the coders are actually using the recording instrument in the same way and can truly isolate a specific aspect of a phenomenon when it occurs. Reliability measures in the form of agreement coefficients, however, indicate the degree to which agreement among independent observers is greater than that which would be expected merely by chance. We use a family of agreement coefficients developed by Krippendorff (1970, 1980) that take the chance factor into account.

Five computational formulas are available for calculating the agreement coefficient. The variations are distinguished by a difference function, the form of which depends upon whether the variable is considered to constitute a nominal, ordinal, interval, polar, or ratio scale. Except for their respective scale-appropriate sensitivity to deviations from perfect agreement, the coefficients make the same basic assumptions as the prototype for nominal scales devised by Scott (1955). Thus, in the case of the binary variable, all formulas yield identical results.

The coefficient of agreement takes the general form:

$$1 - \frac{\text{observed disagreement}}{\text{expected disagreement}}$$

Values for coefficients range from +1.00 when agreement is perfect to .00 when agreement is purely accidental (or perfectly random) to negative values when agreement is less than that expected due to chance. A coefficient of .50 indicates that performance is 50 percent above the level expected by chance. Because chance is taken into

consideration, these coefficients generally give more conservative measures of reliability than simple percent-agreement measures. Items whose agreement coefficients were greater than .75 were accepted unconditionally; items with agreement coefficients between .50 and .75 were accepted conditionally. Data from content items with conditionally acceptable agreement coefficients should be interpreted and used cautiously. Only content items meeting these standards for reliability were included in the message system analysis. A table of the reliability coeffients of content items may be found at the end of this Appendix (III).

Survey Methodology

A national telephone survey of adults (18 and older) in households throughout the U. S. was conducted by the Public Opinion Laboratory at Northern Illinois University in the spring of 1983. The survey instrument was developed by our research team, consulting with Jon Miller of the Public Opinion Laboratory. Questions in the interview schedule included some that had been asked in previous surveys. Many were related to findings from the message system analysis of science programs and the yearly content analyses of prime-time programs conducted as part of the Cultural Indicators project. Overall, the questions focused upon attitudes and orientations towards science and technology, as well as characteristics of scientists. A copy of the instrument is in Appendix IV.

The sample

A multi-stage cluster design was used to generate the sample for this survey. The Public Opinion Laboratory's sampling procedures are

designed so that each adult in the U.S. with a telephone has a equal chance of being selected as a resondent. Only one respondent from each household, randomly selected, was interviewed.

Out of a total of 1,847 attempted interviews, 1,631 were actually completed, giving a completion rate of 88 percent. Three "call backs" were made to each household before replacement. In order to insure that the actual mix of respondents in the final data base reflected the proportions of the U.S. population, a weighting factor was calculated along five dimensions: (1) non-response (to correct for differential response rates across the primary sampling units), (2) number of adults in the household, (3) sex, (4) age, and (5) race. All analyses use weighted data, the total number of respondents is 1,644.

Measures of television viewing

The average daily television viewing of each respondent was measured by the following question:

> "Altogether, on a average day that you do watch television, about how many hours would you say you watch?"

Responses ranged from 0 to 18 hours per day; only one respondent failed to answer this question.

Television viewing was divided into three groups -- light, medium, and heavy viewers. Light viewers (24 percent of the sample) viewed one and a half hours or less each day. Medium viewers (49 percent of the sample) watched from two to three and three-quarter hours each day.

Heavy viewers (27 percent of the sample) watched four or more hours each day.

Overall, the absolute levels of viewing are somewhat lower than we have found in other surveys. This is probably due to the fact that the survey went into the field in the late spring when respondents start to spend somewhat less time watching television. Our basic concern with measuring television viewing is not, however, the absolute amount of television seen by each respondent. Rather, we are concerned with the relative differences between those who watch more television (heavy viewers) and those who watch less (light viewers).

The survey instrument also included four other questions related to television viewing that were used to validate the responses from the question discussed above. These questions were:

> "How often do you watch television -- almost every day, a few days a week, or hardly ever?"
>
> "On an 'average day', how many hours do you spend watching television in the morning -- that is, between the time you get up and the time you each lunch?"
>
> How many hours do you watch in the after-noon -- say between lunch and dinnertime?"
>
> and how many hours do you usually watch in the evening -- between dinner and the time you go to bed?"

A number of control variables were used in the analyses to check for spurious relationships and to illuminate any subgroup specifications. Two basic groups and control variables were used: demographic variables and media-related variables. They will be noted, along with the scales and indices used, in the section on Cultivation Analysis and in the Tables of Appendix I.

Table of Reliability Coefficients
For the Message System Analysis

Average Reliability Coefficients
1973-1983

Content Item	Scale	Coefficient
Program Items		
Place	Nominal	.740
Date	Nominal	.737
Setting	Nominal	.636
Character Items		
Occupation	Nominal	.810
Sex	Nominal	.955
Social Age	Ordinal	.814
Chronological Age	Ratio	.878
Marital Status	Nominal	.721
Race	Nominal	.917
Ethnicity	Nominal	.868
Nationality	Nominal	.775
Character Type	Ordinal	.665
Success	Ordinal	.678
Violence Committed	Nominal	.731
Victimization	Nominal	.689
Personality Trait Scales		
Cold-Warm	Interval	.533
Unfair-Fair	Interval	.609
Unsociable-Sociable	Interval	.513
Repulsive-Attractive	Interval	.571
Weak-Strong	Interval	.398
Powerless-Powerful	Interval	.444
Short-Tall	Interval	.599
Stupid-Smart	Interval	.457
Irrational-Rational	Interval	.438
Unstable-Stable	Interval	.453
Inefficient-Efficient	Interval	.478
Feminine-Masculine	Interval	.770
Young-Old	Interval	.553
Unhappy-Happy	Interval	.533
Poor-Rich	Interval	.601
Dirty-Clean	Interval	.306
Violent-Peaceful	Interval	.540
Unsupportive-Supportive	Interval	.501

Appendix IV

Survey Instrument

CULTURAL INDICATORS PROJECT

THE ANNENBERG SCHOOL OF COMMUNICATIONS

Survey Instrument for

THE ROLE OF TELEVISION ENTERTAINMENT IN PUBLIC EDUCATION ABOUT SCIENCE

<Questionnaire Draft of April 26, 1983>

Introduction:

Hello, my name is _____ and I am calling long-distance from the National Public Attitude Survey. We are conducting a national survey of people's opinions about current issues in the news and your telephone number has been selected. Have you ever been interviewed for a national opinion survey before?

If yes: As you may know, we are a university-based group and we have no products to sell. We are interested in your opinions on a number of current topics and we will treat your answers with strict confidence.

If no: Well, let me take a moment to say that we are a university-based group and we have no products to sell. We are interested in your opinions on a number of current topics and we will treat you answers with strict confidence.

Now, to assure a representative cross-section of people, I will need to talk to just one person who lives at this number and I need your help in selecting that person. How many adults 18 years of age or older regularly live in your home?

Can you tell me the age of each person in your household from oldest to youngest?

Now, according to our selection procedure, I need to speak with the _____ year old. What is that person's first name? May I speak to _____?

Repeat introductory remarks if new person is interviewed.

1. Let me start by asking how interested you are in current events. Would you say that you are very interested (1), moderately interested (2), or not at all interested (3) in current events?

2. There are a lot of issues in the world today and it is hard to keep up with every area. I am going to read you a short list of issues and for each one -- as I read it -- I would like for you to tell me if you are very interested, moderately interested, or not at all interested in that particular issue.

   a. International and foreign policy issues. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   b. Economic issues and business conditions. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   c. Issues about crime and violence. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   d. Issues about new scientific discoveries. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   e. Issues about the use of new inventions and technologies. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   f. Issues about religion. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   g. Women's rights issues. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   h. Issues about energy policy. Are you very interested (1), moderately interested (2), or not at all interested (3)?

   i. Issues about space exploration. Are you very interested (1), moderately interested (2), or not at all interested (3)?

3. Now, I'd like to go through this list with you again and for each issue I'd like for you to tell me if you are very well informed about that issue, moderately well informed, or poorly informed.

   a. International and foreign policy issues. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

   b. Economic issues and business conditions. Would you say that you are well informed (1), moderately well informed (2), or poorly informed (3)?

c. Issues about crime and violence. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

d. Issues about new scientific discoveries. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

e. Issues about the use of new inventions and technologies. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

f. Issues about religion. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

g. Women's rights issues. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

h. Issues about energy policy. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

i. Issues about space exploration. Would you say that you are very well informed (1), moderately well informed (2), or poorly informed (3)?

4. Now to another subject. These days, more and more things that people used to do are done by machines. Do you think that's a good thing or a bad thing?

5. I'm going to name some new inventions and developments. For each one, please tell me whether you think it is generally a good thing, a bad thing, or a little bit of both:

a. How about computers?

b. Industrial robots?

c. Artificial hearts?

d. Electronic bank tellers?

e. Nuclear power plants?

f. How about video games?

6. Now I am going to read you some statements about science. After I read each one, please tell me whether you tend to agree or disagree with it. If you feel especially strongly about a statement, please say that you strongly agree or strongly disagree

with the statement. Okay?

a. One trouble with science is that it makes our way of life change too fast.

b. One of the bad effects of science is that it breaks down people's ideas of right and wrong.

c. Science is making our lives healthier, easier, and more comfortable.

d. Science is likely to cause more problems than to find solutions.

e. The growth of science means that a few people could control our lives.

f. We depend too much on science and not enough on faith.

g. The benefits of science outweigh whatever harm it does.

7. Do you think that the things that happen in this world are mostly controlled by God, or do you think the world runs pretty much by itself?

8. Now, about the future. Do you believe that within the next 20 years we will see:

a. A cure for cancer?

b. A cure for mental retardation?

c. Cars that can fly?

d. A way to travel faster than the speed of light?

e. Wars in space?

f. Humans communicating with alien beings?

g. People working in space stations?

h. A safe method for disposing of nuclear wastes?

9. We are faced with many problems in this country. I'm going to name some of these problems, and for each one I'd like you to tell me if you think the government is spending too much money, too little money, or about the right amount of money:

a. Pollution. Are we spending too much, too little, or about the right amount to reduce and control pollution?

b. New weapons?

c. Conserving energy?

d. Social programs?

e. Exploring space?

10. Do you consider the amount of federal income tax which you have to pay as too high, about right, or too low?

11. In terms of some specific kinds of research, do you think that scientists should or should not be allowed to conduct:

a. Studies that could enable people to live to be a hundred or more?

b. Studies that could allow scientists to create new forms of plant and animal life?

c. Studies that could discover intelligent beings in outer space?

d. Studies that could allow parents to select the sex of their child?

12. In your opinion, does the government have any control over what scientists do? <yes/no>

a. Should the government have any control over what scientists do? <yes/no>

13. Now I'm going to read you some statements about computers. After I read each one, please tell me whether you tend to agree or disagree with it. If you feel especially strongly about a statement, please say that you strongly agree or strongly disagree with the statement. Okay?

a. Someday computers may be running our lives.

b. Many computers can "think" as well as people think.

c. On balance, computers will create more jobs than they will eliminate.

d. Computers can only do what people tell them to do.

e. Almost anyone can learn to use a computer.

14. If you had a son, how would you feel if he wanted to be a scientist -- would you feel very happy, very unhappy, or would you

not care one way or the other?

15. How about if you had a daughter and she wanted to be a scientist -- would you feel very happy, very unhappy, or would you not care one way or the other?

16. Now I'd like to read you some statements about scientists. Please tell me if you tend to agree or disagree with each one:

    a. A scientist usually works alone.

    b. Scientific work is dangerous.

    c. Scientists don't get as much fun out of life as other people do.

    d. Scientists usually don't get married.

    e. Scientists who <u>are</u> married don't spend too much time with their families.

    f. Scientists are apt to be odd and peculiar people.

    g. Many scientists in this country are foreigners.

    h. Scientists are not likely to be very religious people.

    i. Scientists have few other interests but their work.

    j. Most scientists are mainly interested in knowledge for its own sake; they don't care much about its practical value.

17. Overall, how would you rate the job of a scientist? Would you say it is better than most other jobs, about the same as most other jobs, or worse than most other jobs?

18. How old do you think most scientists are -- are they mostly in their 30s, their 40s, their 50s, or their 60s?

19. In your opinion, is a doctor a scientist?

20. What proportion of scientists would you say are women? Would you say that 1 out of 10, or 1 out of 100 scientists are women?

21. Now, for a different matter. When you hear the term "scientific study," do you have a clear understanding of what it means, a general sense of what it means, or little understanding of what it means?

22. In your own words, could you tell me what it means to study something scientifically?

23. In your own words, what would you say a <u>social</u> scientist does?

24. If we were visited by beings from another planet, would these visitors:

    a. Look like humans?

    b. Would they be friendly, or unfriendly?

25. Now, I am going to name some institutions in this country. As far as the PEOPLE RUNNING these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?

    a. the medical community

    b. the government

    c. organized religion

    d. the scientific community

    e. your local church

    f. major companies

    g. the press

    h. television

    <interviewer should repeat categories as necessary>

26. Do you think the United States is ahead of, behind, or about equal with other industrialized countries in terms of technology?

27. How about in our science education -- are we ahead of, behind, or about equal with other countries?

28. People have different opinions about how science courses in public schools should teach theories of creation. Some people believe that <u>only</u> the biblical version of creation should be taught, and some people believe that <u>only</u> the theory of evolution should be taught, while others believe that the biblical version of creation should be given equal weight with the theory of evolution. Which do you believe -- should science courses in public schools teach <u>only</u> the biblical version of creation, <u>only</u> the theory of evolution, or should both be given equal weight?

29. There are many opinions about how dangerous or safe various things are to people's health. For each of the following, please tell me whether you think it is very dangerous, somewhat dangerous, or pretty safe.

    a. How about caffiene -- do you think caffeine is very dangerous,

somewhat dangerous, or pretty safe?

b. How about Vitamins?

c. Cholesterol?

d. Smoking?

e. Alcohol?

f. Birth control pills?

g. Pesticides?

h. Toxic waste?

i. Asbestos?

<if questioned, interviewer should say "in the quantities that most people normally use" or "would be exposed to">

30. How often do you buckle your seatbelt when riding in a car -- Almost always, once in awhile, or hardly ever?

31. If you were buying a car, which of the following would be important to you:

a. A car that goes fast?

b. A car that's easy to park?

c. A car that's big and comfortable?

d. A car that doesn't use much gas?

32. Now, just a few questions about you -- for statistical purposes. During the last 4 years, have you:

a. Voted in any election? <yes/no>

b. Worked for a political party or candidate?

c. Given money to a candidate or party?

d. Worn a campaign button or displayed a campaign poster?

33. In the past 4 years, have you contacted an elected official about something to do with science?

34. How often do you read horoscopes or your personal astrology reports?

35. Would you say that astrology is very scientific, sort of scientific, or not scientific at all?

36. In the last twelve months, have you visited:

    a. A science or technology museum?

    b. A natural history museum?

    c. An aquarium or zoo?

    d. An art museum?

    e. A science fair?

37. Are there any magazines that you read regularly?

    <if yes>

    a. What are they?

    <if no "science magazines" named>

    b. Do you ever read any science magazines -- such as _____, _____, or _____ (from predetermined list) ?

    <if yes>

    c. Which science magazines do you read?

    d. Any others?

    <if any "science magazines" named>

    e. You mentioned that you read _____. Are there any other science magazines that you read? What are they?

    f. In general, how often do you read science magazines -- would you say regularly, or just once in a while?

38. Do you ever read science fiction books or magazines? <yes/no>

    a. How often would you say you read science fiction -- regularly, or just once in a while?

39. How often do you read a newspaper -- every day, a few times a week, once a week, less than once a week, or never?

40. How often do you watch television -- almost every day, a few days a week, or hardly ever?

41. Altogether, on an average day that you do watch television, about how many hours would you say you watch?

    a. On this "average day," how many hours do you spend watching television in the morning -- that is, between the time you get up and the time you eat lunch?

    b. How many hours do you watch in the afternoon -- say, between lunch and dinnertime?

    c. And how many hours do you usually watch in the evening -- between dinner and the time you go to bed?

    <Interviewer should code actual number of hours and minutes given; code "two to three hours" or "two or three hours," etc., as 2.5 hours. Also, interviewer should note whether (and how) respondent revises original viewing estimate in response to daypart items.>

42. Now I am going to name a few kinds of television programs. After each one, please tell me whether you watch that kind of program frequently, once in a while, or hardly ever.

    a. How about daytime serials? Do you watch daytime serials frequently, once in a while, or hardly ever?

    b. How about public television -- do you watch programs on PBS frequently, once in awhile, or hardly ever?

    c. How about religious programs?

    d. Network evening news?

    e. And how often do you watch science programs, like "Nova", "National Geographic", or _____ ?

43. Do you have Cable TV?

    <if yes>

    a. Do you pay for additional cable stations besides those regularly offered through your primary cable service?

44. In your home, do you have:

    a. A video tape player or disc machine?

    b. Video games?

    c. A home computer?

<if yes>

d. What kind of home computer would that be?

45. What is your religious preference -- is it Protestant, Catholic, Jewish, some other religion, or no religion?

a. Would you call yourself a strong _____ or not a very strong _____ ?

46. Are you currently: married, widowed, divorced, separated, or have you never been married?

47. Did you ever get a high school diploma or a GED?

<if yes>

a. What is your highest degree?

<for highest degree>

b. In what field was that degree?

48. <If Respondent attended college> While you were in college, did you take any courses in chemistry, physics, or biology? <yes/no>

<if yes>

a. How many?

49. Did you take any courses in the social sciences (like psychology, sociology)?

<if yes>

a. How many?

50. Did you take any courses in computers?

<if yes>

a. How many?

51. Last week, were you working full-time, working part-time, going to school, or what?

52. What kind of work do you (did you) normally do?

a. What is (was) your job called?

b. What do (did) you do in that job? What are some of your main duties?

c. Does (did) the organization or firm for which you work (last worked) conduct or sponsor any scientific or technological research?

d. Do you use computers or word-processing equipment in your work?

e. Have you ever considered working in a science-related career?

53. <if married> Does your spouse work? <if yes>

a. Does the organization or firm for which he/she works conduct or sponsor any scientific or technological research?

54. Would your total yearly household income be under or over $25,000?

<if UNDER $25,000>

a. Would it be under $15,000?
<YES = under $15,000; NO = $15,000-$24,999>

<if OVER $25,000>

b. Would it be over $35,000?
<YES = over $35,000; NO = $25,000-$35,000>

55. What race do you consider yourself?

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READ: THAT'S ALL THE QUESTIONS. THANKS VERY MUCH FOR YOUR TIME !

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